



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

TITLE MANUAL HANDLING EQUIPMENTS AND MANDATORY SPARES	Phone: +91 431 257 7876 Fax : +91 431 252 0719 Email : prateekkumar@bheltry.co.in
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	Reference Number: Enquiry 1801700834	Enquiry Date: 24.06.2017	Due date for submission of quotation: 13.07.2017
You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order			

BHEL/Trichy is looking for empanelment of new vendors for supply of "MANUAL HANDLING EQUIPMENTS AND MANDATORY SPARES"

BHEL commercial terms & conditions and all annexure can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference "1801700834"

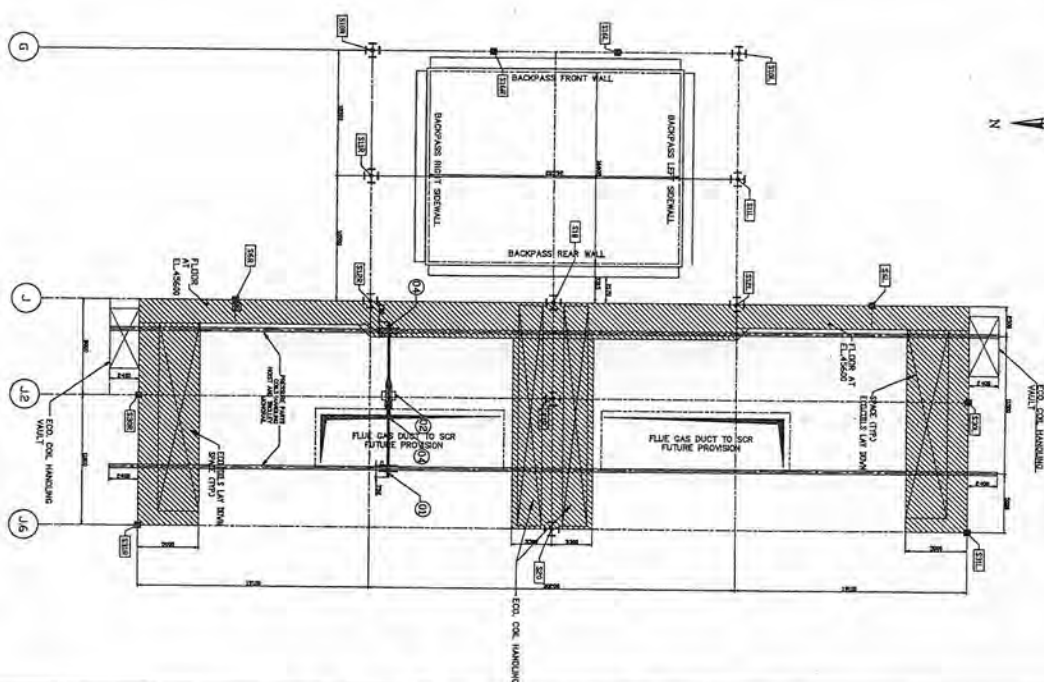
Tenders should reach us before 14:00 hours on the due date
Technical bid will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.

Yours faithfully,
For Bharath Heavy Electricals Limited


24/06/2017

Engr/ MM/BOI

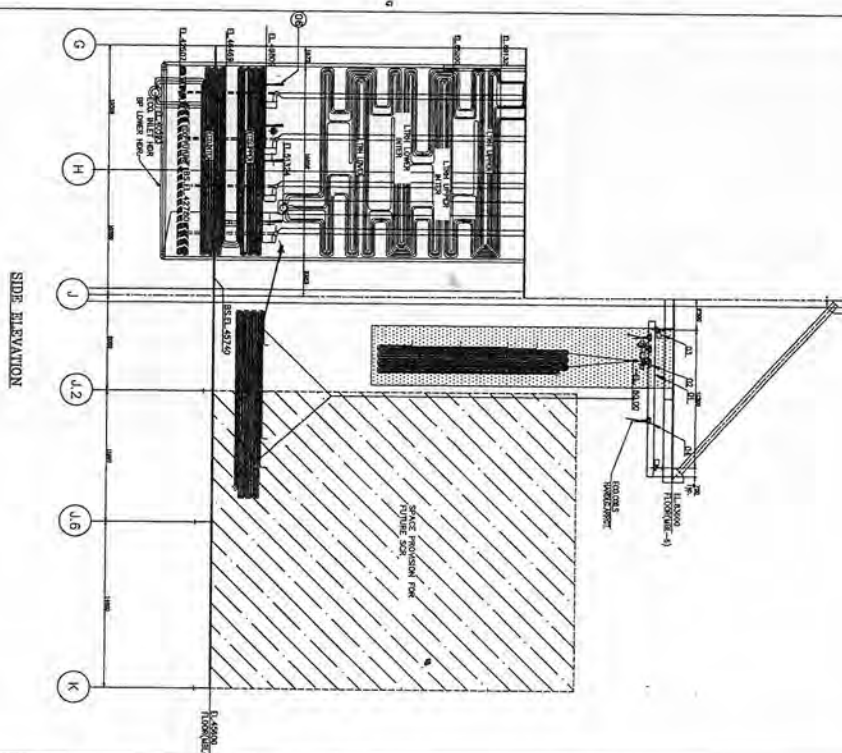
.PRATEEK KUMAR JAIN
Engineer
Materials Management / BOI
BHEL, TIRUCHY - 620 014.



PLAN

ITEM NO.	DESCRIPTION	QTY.	REMARKS
01	UNDERSLING CHAIN, ELEC. CAP. 10T, GRAY 1550mm		
02	TRUCK W/IN HOOD - 312C, CAP. 10T, LIFT 30.0M	1	
03	TRUCK W/IN HOOD - 312C, CAP. 10T, LIFT 30.0M	1	
04	TRUCK W/IN HOOD - 312C, CAP. 10T, LIFT 30.0M	1	
05	FALCON 11500T LIFT, CAP. 10T, LIFT 35.0M	1	NOT SHOWN
06	CRANE TOWER LIFT, CAP. 10T, LIFT 35.0M	1	NOT SHOWN
07	ARMED ROVER FOR ROVIN HOOD - CAP. 3T, LIFT 30.0M	5	NOT SHOWN

Max weight of pair of coils to be handled



SIDE ELEVATION

REV	DATE	ALTERED:
01		OLD & APP

[illegible]

Memorandum Of Understanding

**M/s BHEL
Trichy – 620 014**

and

**M/s. XXXXXXXXXXXXXXXXXXXX.
XXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXX
XXXXXXXXXXXXX**

(Vendor Code : XXXXX)

For supplying

**Manually Operated Handling Equipment
(Item Code – 99HEM)**

**MOU NO : MOU / TPBHEL / M_HOIST- Rev.00
Date : 09-12-2013
Valid upto : 08-12-2015**

Engineering

Quality

Purchase

Vendor

**Memorandum of Understanding (MOU) between BHEL / FB and M/s. xxxxxxxxxxxxxxxx ,
for supplying Manually operated Handling Equipment (Trolley with Hoists, Ratchet Lever
hoist, Under hung Cranes and Interlock mechanisms).**

1.0 GENERAL:

- 1.1 This MOU is signed for supplying the Manually operated Hoists as per the agreed standardized specification so that these details need not be discussed again and again for future supplies.
- 1.2 The various aspects covered in this MOU are as follows.
- 1.2.1 The general points are covered in Section – 1.0 – General.
- 1.2.2 The specification requirements are covered in Section – 2.0 – Specifications.
- 1.2.3 The documents to be submitted along with the offer / after placement of Order / along with the hoists are covered in Section 3.0.
- 1.2.4 The Inspection / Testing and Packing requirements are covered in Section – 4.0
- 1.2.5 The project specific details / data and if any customer specific requirements shall be covered in Section 5.0 – Project related Information. **DEVIATION ON PROJECT RELATED INFORMATION WILL LEAD TO REJECTION OF OFFER.**
- 1.2.6 **If any differences are found between the details given in Section 5.0 and other sections, Section 5.0 shall be considered as final and the vendors shall meet this requirement for that particular project.**
- 1.3 Sections 1.0, 2.0, 3.0 and 4.0 are standard and Section 5.0 alone will be furnished along with enquiry to the vendors for their acceptance.
- 1.4 **It is agreed that no deviations will be taken by the vendors while submitting their offers against future enquiries.**
- 1.5 Since the specifications are standardized and an understanding has been reached, the future enquiries will be floated on “SINGLE BID SYSTEM” only. Hence, if any offer is found with deviations, the same will be totally rejected and will not be considered for further evaluation.
- 1.6 The validity of this MOU is for TWO years from the date of signing. After the expiry of the period, the same can be extended further with or without any modifications. However, in case any changes are required, the MOU may be amended before the expiry of the validity.
- 1.7 Pre commissioning spares (if applicable) with price break up as per the list (vide Section 5.0) shall be supplied along with the hoists.
- 1.8 Two years recommended Spares list(vide Section 5.0) with price break up shall be enclosed.

- 1.9 If any special or non-standard tools are required for installation, operation or maintenance, the same shall be supplied along with the hoists.
- 1.10 Trouble-free operation of the equipment shall be guaranteed for a period of 18 months from the date of commissioning OR 24 months from the date of dispatch whichever is earlier.
- 1.11 Vendor has to provide Bank Guarantee for 10% order value (as per BHEL format) valid for a period mentioned in point No.1.10.
- 1.12 Dispatch clearance will be issued along with PGMA with DU Nos. for the ordered items to vendor after the receipt of acceptable Inspection Report . Vendor agreed to mark the PGMA with DU Nos. in the casing of the packing and in the Packing Slip.
- 1.13 Materials shall be dispatched on “Door Delivery with or without Consignee Copy attached basis to avoid demurrage at transporter’s godown.
- 1.14 Since the vendors works alone is approved by BHEL, it is agreed the vendor will manufacture this item in their own works only and will not off-load the jobs to any other suppliers without the written approval by BHEL.
- 1.15 All components of the hoists should be packed in such a way that it should not get damaged during transport.
- 1.16 BHEL and the Vendor shall have an involvement which will commence at bid stage and follow through the completion and acceptance, thus ensuring total conformity to Purchaser’s requirements.

2.0 Technical Requirements:

- 2.1 *This purchase specification specifies the requirements for design, manufacture, inspection and testing at supplier's works and supply of manually (Hand) operated Trolley With Hoist (TWH), Ratchet lever, Under Hung Crane (UHC) and male & female interlock mechanism. For scope of supply, refer to Annexure II.*
- 2.2 *The trolley with hoist, under hung crane and interlock mechanism will be operating in normal ambient temperature range of 0 - 50 °C. The atmosphere will be with excessive dust, heat, moisture and corrosive fumes.*
- 2.3 *The equipment shall be designed for operation suitable for **OUTDOOR DUTY** without any roofing above the equipment. The trolley with hoist / under hung crane shall be operated on monorail / runway beams of rolled or fabricated beam.*
- 2.4 *Technical parameters for equipment design are furnished in Annexure I. For scope of supply and special requirements refer to Annexure II. Annexure III comprises data*

sheets which are to be duly filled in by the vendor and shall be submitted along with the offer.

This is a general specification dealing with technical requirements of various handling equipment as mentioned above. Contract requirements and special requirements (if any) for a particular project are specified in Section-V of this specification.

2.5 Codes & Standards:

2.5.0 The equipment shall comply with the latest revisions of the following standards.

- 2.5.1 IS 3832 Specification for hand operated chain pulley block.*
- 2.5.2 IS 6216 Specification for short link chain grade T (8) calibrated for pulley blocks and other lifting appliances.*
- 2.5.3 IS 15560 Specification for point hook with shank up to 160 tonnes.*
- 2.5.4 IS 807 Design, manufacture, erection and testing (Structural portion) of cranes and hoists.*
- 2.5.5 IS 3681 General plan for spur gear and helical gears.*
- 2.5.6 IS 2062 Weldable structural steel.*
- 2.5.7 IS 2429(Part 1) Round steel short link chain (Electric butt welded), Grade L (3)*
- 2.5.8 IS 1024 – Code of practice for use of welding in bridges and structures subject to dynamic loading.*
- 2.5.9 IS 2004 - Carbon steel forgings for general engineering purposes*
- 2.5.10 IS 4368 – Alloy steel billets, blooms, and slabs for forging for general engineering purposes.*

2.6 Technical requirements

- 2.6.1 Design and manufacture of under hung crane and chain pulley block with trolley and male and female interlock mechanism shall be of consistent capacity, lift, headroom, span, overhang and any other parameters as specified in the annexure-I.*
- 2.6.2 While designing the under hung crane, chain pulley block with trolley and male & female interlock mechanism, care shall be taken for the following features:*

- ❖ Minimum effort to lift and move the under hung crane & chain pulley block with rated safe working load.*
- ❖ Self-braking systems for holding the load and stop the crane in any position.*
- ❖ Compact design and even loading of bearings.*
- ❖ Ease of installation and maintenance.*
- ❖ Interlock mechanism shall be capable of taking the axial load due to the movement of equipment with rated safe working load.*

- 2.6.3 *All materials used for construction of different components shall individually conform to standards mentioned in clause 2.5*
- 2.7.0 **Hand operated chain pulley block, ratchet lever & under hung crane.**
- 2.7.1 **Frame:** *The Frame, crane girder and end carriage shall be designed for proper strength built from steel plates with bolted/welded construction (recommended material: IS 2062).*
- 2.7.2 **Gear & Pinions:** *Hand operated under hung crane and chain pulley block with trolley shall be supplied with helical / spur / worm gear. The gear shall be designed for surface durability and proper strength such as to afford efficient operation through out the period guaranteed by the manufacturers. In case of enclosed gearing, means shall be provided for ample lubrication. Such lubrication points are to be indicated along with specification of lubricant, market trade names, quantity of lubricant requirement and frequency of lubrication. Material of construction shall be conforming to relevant Indian standard or equivalent and casehardened. Hardness for CT & LT shall be minimum 250 BHN for pinions and 200 BHN for gears. Hardness for hoisting shall be in the range of 285 to 300BHN for pinions & minimum 250BHN for gears. However vendor shall maintain and ensure that gear hardness is always less than pinion hardness by at least 35BHN. Helical / spur gears only shall be used for hoists, CT & LT. All gears & pinions shall be examined by LPI / MPI for surface cracks after case hardening.*
- 2.7.3 **Gear Housing:** *Gear housing assembly consists of a fabricated housing in which gears are assembled (worm-worm wheel in case of worm wheel type and spur gear in case of spur gear type)*
- 2.7.4 **Load Brakes:** *Hand operated under hung crane and chain pulley block with trolley shall be provided with an automatic mechanical load brake, Ratchet & pawl type, which will prevent self lowering of the load and arrest and sustain load in all working positions. The load brake shall also allow smooth lowering of the load without serious overheating which may impair efficient working of the block.*
- The pawl and ratchet shall be made of steel and hardened and tempered to provide satisfactory degree of wear resistance. Hardness shall be minimum 375BHN for Pawl & minimum 300BHN for Ratchet. However vendor shall maintain and ensure that ratchet hardness is always less than pawl hardness by at least 50BHN. Material shall be of 45C8 - IS2004 & IS 4368 or equivalent. Supplier shall indicate material specification and provide material test certificates for compliance.*
- 2.7.5 **Bearing:** *Only antifriction bearings of reputed make shall be used. Supplier shall specify the make of the bearings used in the offer (make shall be of TATA, SKF, NBC, FAG, PRECISION).*

2.7.6 **Hooks:** Hooks shall meet the dimensional, material, testing & inspection requirement of IS 3815 / 8610. The hook shall be provided with standard depress type safety latch and swivel thrust bearings with hardened race. Lugs for fixing safety latch shall be either forged along with the hook or clamp type latch with lugs shall be provided. Welding of lug is not permitted. Locking arrangement shall be provided to avoid unscrewing of the hook in service. Material of hook shall be conforming to IS 2004 – 35C8 or equivalent (Tensile strength shall be in the range of 50 to 62 Kg/Sq.mm) and made by controlled grain forging and normalised. All the hooks shall be tested for twice the safe working load. After the proof load all hooks shall be examined by LPI / MPI & UT (UT required for hooks >5.0T capacity) for cracks. The hook shall not distort or fracture. Ball & roller bearings shall not be used in these hooks. The bottom hook block shall be provided with thrust bearing to enable its free swivelling in the loaded condition without twisting the load chain.

2.7.6.1 Suspension fittings other than hook shall be of sufficient strength to afford a static factor of safety of not less than 4(four).

2.7.7 **Load Chain:** The link chain shall be of minimum GRADE 80 conforming to IS: 6216. The chain shall be pitched and polished. The chain shall be coated with rust preventive oil. All chains shall be tested for 2 times of SWL and other testing shall be as per IS 6216.

2.7.8 **Hand Chain:** The hand chain shall be of GRADE L (3) and conform to IS: 2429 (Part1). The chains shall be pitched and polished. The chain link dimensions shall be 6.0 mm. conforming to IS 2429 (Part1). The length of chain shall be such that the lowest point of loop will be 0.4 meter above the operating level. The chain shall be coated with rust preventive oil.

2.7.9 **Load Chain Wheel:**
Wheel for load chain shall be made of material suitable for use with load chain employed and be of adequate strength and shall be designed to ensure effective operation.

2.7.9.1 **Hand Chain Wheel:**

Wheel for hand chain shall be of malleable cast iron / plate with suitable thickness to ensure effective operation and shall be provided with flange.

2.7.9.2 The chain guide shall be so designed that the chain will neither come out of the wheel during use nor get caught between guide & the wheel.

2.7.10 **Idler wheels:** The chain pulley blocks shall be provided with idler wheels so shaped as to avoid twisting of the chain when passing around.

2.7.11 **Wheels:** Wheels for under hung crane and trolley wheels for chain pulley block shall be spur geared type, cast / forged, 4 wheeled, driven by hand chain.

2.7.11.1 Trolley / under hung crane wheels shall be designed to suit the monorail / runway beam size and profile decided by purchaser (which will be furnished during drawing approval stage).

2.7.11.2 Shall be made out of forged or low carbon steel/cast steel with heat treated to minimum 200BHN hardness. Cast iron grade 20 with hardness of 200 BHN is also acceptable. The drive gears if any integral with the wheel shall be of the same material and hardness. Wheels for under hung crane and trolley wheels for hoists shall be spur geared type, cast / forged 4 wheeled.

2.7.12 Trolley:

The trolley for chain pulley block shall be of spur geared type, fabricated construction, 4 wheeled, driven by hand chain and shall have provision for mounting the chain pulley block.

2.7.13 End Carriage:

Shall be of 4 wheeled spur geared type and fabricated construction. Suitable wheelbase shall be provided. End carriages shall be designed to suit the runway beam size. (Which will be furnished by purchaser during drawing approval.) End carriages shall be connected with crane girder by welding or by fasteners (For ease of transportation, if welding required, the same shall be done at site by purchaser).

2.7.14 Ratchet Lever:

The ratchet lever consists of toothed wheel, pawl, catch etc., The pawls shall be of strength to arrest the full load from lowering due to gravity. The relative width and positioning of the ratchet wheel and the pawl shall be such as shall ensure full engagement irrespective of wear of the friction faces. The pawl and the ratchet shall be made of steel, hardened and tempered or given an equivalent treatment to provide satisfactory degree of wear resistance together with toughness. The hardness of the pawl tip shall not be less than 40HRC and that of ratchet not less than 30HRC. The pawl shall engage with the ratchet wheel either by means of a spring other than a tension spring or by some other equally effective means.

The pawl shall be so positioned that it engages the ratchet wheel under gravity should it operating mechanism fails. Adequate arrangements shall be made to ensure that the pawl does not seize on the pawl pin.

2.7.15 Crane Girder:

Crane girder shall be of rolled section. Fabricated beam and welded beam shall not be used for this purpose unless otherwise specified by the purchaser for special cases. For such cases, refer annexure - II to this specification for details. Camber /

deflection shall be within span/1000. Allowable bend (straightness) shall be 1mm/metre and maximum bend shall not exceed 6mm of total span.

2.7.16 Suitable anti tilt/topple or roller arrangement shall be provided between runway beam and crane girder to avoid toppling of crane while the hoist is at overhang side.

2.8.0 Male & Female interlock mechanism

2.8.1 Male & female interlock mechanism shall be designed to transfer the trolley with hoist with rated safe working load from master crane to slave crane or master crane to fixed monorails and vice versa. The interlock mechanism shall be capable of withstanding the forces even when one of the cranes is being operated by mistake. The cross travel stoppers should give way to the hoist when interlock mechanism is coupled.

2.8.2 Dimensional tolerance for the male & female component of the interlock mechanism shall be very close which will ensure proper locking (without play) and smooth transfer of trolley from one crane to the other.

2.8.3 Hand wheel with chain of suitable length shall be provided to operate the male & female mechanism manually from the operating floor.

2.8.4 Male and female interlock mechanism shall be designed suitably to take the axial load and safe working load.

2.8.5 Grease nipples shall be provided at all lubrication points & shall be easily accessible. Frequency of lubrication shall be minimum.

2.8.6 Fasteners shall be made of precision grade high tensile steel (Grade 8.8 class) and galvanised. Load bearing fasteners shall be suitably designed & machined. Vendor shall furnish material / tensile strength for special fasteners in the arrangement drawing.

2.9 Welding: *All welding shall conform to IS 1024 and welders shall be qualified to AWS D1.1 / ASME -Section IX.*

2.10 Name Plates:

2.10.1. Nameplates shall be provided with non-corrosive material

2.10.2. Nameplates shall have details of the equipment, model no., type, capacity, lift, span, and motor & brake details.

2.10.3 All lubrication points shall be provided with nameplates.

3.0 DOCUMENTS BY VENDOR

Engineering

Quality

Purchase

Vendor

3.1 Along with the offer:

- 3.1.1 *Data sheets for Trolley With Hoist & Under Hung Crane (Annexure III)*
- 3.1.2 *Technical specification for equipment*
- 3.1.3 *Quality plan & typical arrangement drawing*
- 3.1.4 *Deviation: No deviation will be entertained on the MOU specification.*
- 3.1.5 *Exclusion: Any exclusion from scope of supply shall be clearly spelt out in the offer itself. Exclusion of major / critical items shall make the offer liable for rejection.*

3.2 After placement of order:

- 3.2.1 *Quality Plan is to be submitted by vendor for Purchaser and End user's approval.*
- 3.2.2 *Dimensional drawings for approval.*
- 3.2.3 *Data sheet for hoists and cranes for Purchaser's / End user's approval.*

3.3 During supply:

- 3.3.1 *Performance test certificates for TWH, UHC, Safety devices and Chain.*
- 3.3.2 *Physical, Chemical, hardness and NDE test certificates shall be provided wherever applicable for trolley / crane wheels, load chain, hand chain, pulleys, hook, gears, pinions, shafts and other materials.*
- 3.3.3 *Other certificates either for sub-vendor's manufacturing or bought-out items shall also be furnished if applicable.*

3.4 Drawings & O & M Manuals:

- 3.4.1 *The drawings furnished with the offer shall clearly indicate the items (bill of materials) that go to make the trolley with hoist and / or under hung crane. The drawings shall clearly indicate the weight particulars of such items / sub assembly that will be despatched as loose items in the packing cases.*

The bill of material shown in the drawing shall match with that of the despatchable unit as indicated in the packing slip. The drawing shall be prepared in AUTOCAD and vendor shall forward both hard copies (3 numbers each) and floppy (Copied with drawing files) to the purchaser.

- 3.4.2 *Performance and load test certificate shall be submitted along with the supply.*
- 3.4.3 *Catalogues and other details of the product shall be submitted along with the offer.*

3.5 O & M Manuals

3.5.1 Number of copies required is 3sets of hard copies and 3 nos.soft copies in CDs..

3.5.2 Manuals should be in printed form only (**Xerox** copies are not acceptable).

3.5.3 The size of manuals should be in correct A4 size with drawings not bigger than A3 size. Large size drawings (greater than A3 size) should be reduced to A3 size and inserted (Drawings shall be of laser prints or printed. Blue prints are totally not acceptable).

3.5.4 Spiral or comb bound copies should be totally avoided.

3.5.5 If manuals are supplied in folders, the folder should have 3-hole punching.

3.5.6 O & M manuals, should be submitted to BHEL / Tiruchirappalli prior to despatch of the equipment.

3.5.7 Manual, generally should contain the following:

3.5.7.1 Data sheet

3.5.7.2 Brief description

3.5.7.3 Operation

3.5.7.4 Maintenance (including lubrication, where necessary) and service, recommended spares for 2/3 years trouble free service.

3.5.7.5 Trouble shooting

3.5.7.6 Assembly drawings with part list, dimensional drawings and other applicable drawings.

3.5.8 Manuals should pertain only to the types or model of the equipment supplied for a particular order.

3.5.9 It is preferred if the O & M manuals are prepared in electronic media and copied on a floppy and submitted along with hard copies.

3.6 Guarantee Required:

18 months from the date of commissioning or 24 months from the date of supply.

3.7 Packing & Identification

3.7.1 All packaging shall be done in such a manner as to reduce the volume. The equipment shall be dismantled into major components suitable for shipment and shall be

properly packed to provide adequate protection during shipment. All assemblies shall be properly match marked for site erection.

- 3.7.2 *Attachments, spare parts of the equipment and small items are to be packed separately in small cases. Each item shall be tagged with identification of the main equipment number, item denomination, and reference number of the respective assembly.*
- 3.7.3 *Detailed packing list in water- proof envelope shall be inserted in the package together with equipment.*
- 3.7.4 *Each equipment shall have a name- plate giving the salient equipment data, make, year of manufacture, equipment number followed by the firm, manufacturers name plate. Each hoist will have a name- plate fixed on both faces in such a manner that the safe working load can be clearly seen from the operating floor.*

3.8 Spare Parts

- 3.8.1 *Mandatory spares: The offer shall include list of recommended spare parts with itemised price, for 2/3 years operation of the equipment Proper coding and referencing of spare parts shall be done so that later identification with appropriate equipment will be easier.*
- 3.8.2 *Commissioning spares: The offer shall include the required commissioning spares as part of the main package. The cost of such spares included may be separately indicated in the offer.*

4.0 INSPECTION, TESTING & PACKING:

- 4.1 *Purchaser's (BHEL) and end user's (BHEL's customer) representative shall have the access to the works of vendor at all reasonable times for the purpose of witnessing the purchased equipment being tested.*
- 4.2 *Vendor shall provide a **Quality Plan** along with the offer for review and approval by Purchaser or end user.*
- 4.3 *Each chain pulley block with trolley shall be subjected to 1.5 times the safe working load for a lift of minimum one metre, which shall ensure that every part of the block mechanism and each tooth of the gears come under load. The trolley with load shall be tested for smooth operation for cross travel without any problems.*
- 4.4 *All visual examination after operational proof tests for deformation, cracks etc, shall be checked by Purchaser or it's appointed representative for all 100% cases.*
- 4.5 *Type test (static loading) shall be conducted at 200% safe working load. Static tensile loading shall be done once in a year or if there is a design change which ever is earlier. Records shall be maintained by the supplier for this and a copy of the same shall be furnished.*

4.6 *All under hung crane shall be tested for 125% of safe working load. All visual examination after operational proof test for deformation, cracks etc, shall be checked by Purchaser or their appointed representative for all 100% cases.*

4.7 *Each under hung crane shall be subjected to 1.25 times the safe working load at the middle of the crane girder. The trolley and chain pulley block with load shall be tested for smooth operation for cross travel on the crane girder without any problems. Wheel matching of the crane with runway beam shall be checked with 125% safe working load. Allowable deflection is span / 1000 at SWL.*

4.8 *Certificate of test and examination shall be issued for the chain pulley blocks with trolley and under hung crane individually giving the following information.*

4.8.1 *Safe Working Load*

4.8.2 *Range of Lift*

4.8.3 *Load chain & hand chain size and grade*

4.8.4 *Span of the crane*

4.8.5 *Over hang on either side*

4.8.6 *Proof load applied.*

4.9 Hooks:

4.9.1 *Raw material test certificate shall be submitted from manufacturer.*

4.9.2 *Proof load at 200% of safe working load on each hook irrespective of capacities.*

4.9.3. *Chemical composition and destruction test shall be carried out on one sample per batch.*

4.4.4 *After proof load test, hook shall be examined for cracks, deformation, flaws and other defects with LPI / MPI. Hooks above 5T capacity shall be examined with UT. Acceptance norms for LPI / MPI: No linear indications or crack are acceptable while carrying-out LPI / MPI. For UT, it shall be as per ASME - Sec. VIII - Division 2. - AM 203.2.*

4.10 Load Chain:

4.10.1 Breaking Test:

First few links of the lot (Refer IS 5616) shall be tested for minimum breaking load (400% SWL) after manufacture, heat treatment and calibration.

The sample shall first be subjected to proof loading and then shall be tested to destruction and breaking load.

4.10.2 Rolling Over Wheel Test:

Full length of chain after proof loading shall be passed over actual load chain wheel.

4.11 All structural welds, gears, castings/forging shall be examined by MPI / LPI for cracks, surface defects. Acceptance norms for LPI / MPI: No linear indications or crack are acceptable while carrying-out LPI / MPI. All butt welds shall be tested radiography and acceptance norms shall be as per AWS D1.1/ ASME -Section IX.

4.12 Performance test for Under Hung Cranes, Chain pulley blocks & Ratchet lever

4.12.1 Under hung crane shall be checked for smooth running of chain pulley block with trolley on crane girder and crane movement shall be checked with 125% safe working load on runway beam at site by purchaser / end user under vendor's supervision and if found defective, the same shall be replaced at free of cost by vendor.

4.12.2 Chain Pulley block with trolley and under hung crane shall be checked for brake system to arrest the movement and sustain the load at any working positions.

4.12.3 Chain pulley block with trolley shall be checked for smooth running on monorail with load above 2meters from ground.

4.12.4 Wheels shall be checked for matching with monorail / runway beam.

4.12.5 Ratchet lever shall be checked for its smooth operation to the rated capacity

4.12.6 Equipment shall be provided with nameplates consisting of:

- a) Description*
- b) Serial No.*
- c) Manufacturer*
- d) Type*
- e) Capacity & size.*
- f) Year of manufacture.*

4.13 Protection & Painting

4.13.1 Surface Preparation:

The surfaces to be coated shall be free from contamination, weld slag and spatter shall be removed. Surface defects shall be removed by suitable methods.

Sharp edges shall be smoothened by grinding. Prior to surface preparation oil, grease, drilling / cutting emulsions and preservative agents shall be carefully removed by suitable solvents. The surface shall be carefully dried with clean cloths to prevent the dissolved impurities from spreading over the entire surface. The surface

shall be cleaned by wire brush and shot blasting if required. Proper adhesion of paint to the surface shall be ensured.

4.14 Painting

4.14.1 Primer: 2 coats of red oxide with 40 microns DF Thick minimum.

4.14.2 Finish Coat: 2 Coats of enamel paint with each 40 microns DF Thick minimum.

4.14.3 Finish paint colour shall be of Black for HOOK and Golden yellow for CHAIN PULLEY BLOCKS, Ratchet lever and UNDER HUNG CRANES.

4.14.4 Non-ferrous material, austenitic stainless steels, plastic or plastic coated materials, insulated surface of equipment and pre painted items need no painting.

4.14.5 All the rotary parts inside shall be thoroughly greased.

4.14.6 All the machined parts shall be covered with water- proof packing material and packed in wooden boxes to avoid any damage during transit.

4.14.7 Machined and bearing surfaces shall be protected with varnish or thick coat of grease.

4.14.8 For special painting if any, refer Section-5 to this specification.

5.0 PROJECT RELATED INFORMATION

Project Name	:		
Engineering	Quality	Purchase	Vendor

Enquiry No. / P.O.No. :

Sl.No.	Description	Specification	Vendor Confirmation Yes / No
5.1	Hoist Parameter	Refer Annexure-I	
5.2	Painting schedule & Special requirements	Refer Annexure-II	
5.3	Spares		
5.3.1	Commissioning Spares	Vendor to specify	
5.3.2	2 years recommended spares	Vendor to specify	
5.4	Data Sheet		
5.5	Data Sheet	(Annexure-III) Vendor to submit	
5.6	G.A.Drawings (for hoists, cranes, CPB, Ratchetlever hoist etc.)	Vendor to submit	

Note: 1. Deviation in the above requirements shall reject the offer.
2. If required, please add more sheets.

Engineering

Quality

Purchase

Vendor

Annexure-III to Specification

Project :xxxx

(Cust.no. xxxx)

Enquiry no:

The following data sheet is to be filled by the vendor and submitted along with the offer. This data sheet shall form part of ordering specification and shall be approved by Engineering On acceptance of the offer.

Technical Data sheet for Hand operated Handling equipment

1.0	Under hung crane					
1.1	Capacity - in tons					
1.2	Span - in m.					
1.3	Overhang on either side - in mm.					
1.4	Runway beam size (User / Purchaser) Will be furnished during vendor drawing approval.					
1.5	Operating floor - in m.					
1.6	Wheels					
1.6.1	Wheel shape whether match with runway beams	Yes / No				
1.6.2	Wheel material					
1.6.3	Wheel diameter - in mm.					
1.6.4	Wheel base - in mm.					
1.7	Wheel bearing					
1.7.1	Type					
1.7.2	Size					
1.7.3	Make					
1.8	Shaft					
1.8.1	Material					
1.8.2	Hardness					
1.9	Gears / Pinions					
1.9.1	Material					
1.9.2	Hardness					
1.10	Crane girder					
1.10.1	Type	Single / Double / Box				
1.10.2	Size					
1.10.3	Material					
1.11	End stopper					
1.11.1	Provided	Yes / No				
1.11.2	Type					
1.12	Weight of the crane - in Kgs.					
1.13	Overall dimensions of crane					

Vendor Name :

Signature :

Date :

Annexure-III to Specification

Project :xxxx

(Cust.no. xxxx)

Enquiry no:

1.14	Clearance between Runway beam bottom & Crane girder top - in mm.					
2.0	Trolley With Hoist					
2.1	Capacity - in tons					
2.2	Lift - in m.					
2.3	Headroom - in mm.					
2.4	Operating floor - in m.					
2.5	Approximate weight - in Kgs.					
2.6	Overall dimensions of Trolley with hoist					
2.7	Trolley wheels					
2.7.1	Wheel diameter - in mm.					
2.7.2	Material					
2.7.3	Hardness					
2.7.4	Quantity					
2.8	Load chain					
2.8.1	Link diameter					
2.8.2	Material					
2.8.3	Ultimate tensile strength in kg/sq.mm.					
2.9	Hand chain					
2.9.1	Size					
2.9.2	Material					
2.10	Ratchet					
2.10.1	Material					
2.10.2	Hardness					
2.11	Pawl					
2.11.1	Material					
2.11.2	Hardness					
2.12	Gears & Pinions for Hoisting					
2.12.1	Material					
2.12.2	Hardness					
2.13	Gears & Pinions for Cross travel					
2.13.1	Material					
2.13.2	Hardness					
2.14	Hook					
2.14.1	Material					
2.14.2	Hardness					
2.14.3	Tensile strength in kg/sq.mm.					
2.14.4	Safety latch provided in the hook(Yes / No)					

Vendor Name :

Signature :

Date :

ANNEXURE- A

PROCEDURE TO PARTICIPATE IN E-PROCUREMENT

BHEL Trichy has implemented e-Procurement (www.bheleps.buyjunction.in) and it is going to be the way of working in future.

Interested bidders / Suppliers shall submit their offer through e-Procurement mode at <https://bheleps.buyjunction.in>. Offers in any other mode will not be accepted.

The Requirement:

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate) (**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

The following are the benefits of e-Procurement Process.

1. Ensuring no offer is missed due to last minute submission, postal delays etc.
2. Reduced Tendering & ordering cycle time
3. Economical, smoother & speedy communication
4. Greater Transparency
5. Big step towards paperless procurement process, Minimal human error
6. No geographical barriers
7. Vendor gets alerts regarding issue of new tender enquiry, amendments, clarifications etc
8. Submission of offer from the comforts of their office from any location
9. on line clarifications
10. Direct Cost Savings such as reduced Paper costs, reduced printing costs, reduced mailing costs, reduced telephone costs and reduced fax costs.

BHEL has finalized the e-procurement service Provider

M/s mJunction services Limited, Kolkata

Godrej Water Side, 3rd Floor, Tower-1, Plot-V, Block - DP
Sector - V, Salt Lake, Kolkata-700091, West Bengal, INDIA

Please get in touch with them immediately. The contact details of the service provider is given below:

- a. DHANARAJ.P email: panneer.dhanaraj@mjunction.in, Cell 9500199108
- b. HELPDESK email: eps.customercare@mjunction.in, Phone No: 033-66106426/6217/6013/6046/6176, 9163348283 / 9163348284 / 9163348285 / 9163348286 / 8584008116

The process of utilizing e-procurement necessitates usage of DSC (Digital Signature Certificate)(**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**) and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process. The contact details of the DSC Certifying Authority as given below

1	e-Mudhra	http://www.e-Mudhra.com	5	NIC	www.safescrypt.com
2	GNFC	www.ncodesolutions.com	6	Safescrypt	www.safescrypt.com
3	IDRBT	www.idrbtca.org.in	7	TCS	www.tcs-ca.tcs.co.in
4	MTNLTrustline	www.mtnltrustline.com			

Vendors are requested to go through seller manual available on www.bheleps.buyjunction.in

BHARAT HEAVY ELECTRICALS LIMITED
PURCHASE / MM / BOI
BHEL / TRICHY

ANNEXURE-B

ENQUIRY TERMS AND CONDITIONS FOR SUPPLY OF MANUAL HANDLING EQUIPMENTS& MANDATORY SPARES

Note: This Annexure has to be mandatorily filled & signed by the manufacturer (or) mill and submitted along with Technical Bid.

Any deviation to the below mentioned terms shall be stated specifically in the comments column for each term and also in case of acceptance to our terms, it will be construed that the whole term is understood and agreed in totality without any deviation (if otherwise mentioned).

<u>Sl No</u>	<u>BHEL Requirements</u>	Supplier Comments (Acceptance or otherwise for each point to be given)
1	Supply of Manual Handling Equipment shall be as per the enclosed specification No. MOU/TPBHEL/M_HOIST Rev.00, Annexure III and following drawings: For Krishnapatanam project: - Drg No.0-99-502-40327/00 For Vijayawada project: - Drg No.0-99-502-40336/00	
1.1	Your offer shall be considered only if your company is meeting Tender Prequalification requirement (Annexure D). Vendor to comply with Pre-Qualification requirement (Annexure D) of the tender and submit along with their technical bid - the credentials and other documents as indicated in the PQR in the format prescribed. Otherwise their offer may get rejected.	
1.2	Vendor to confirm compliance to our specification requirement	
1.3	Filled & duly signed data sheet as per Annexure-III to Specification shall be furnished along with the offer.	
1.4	Painting shall be done as per the applicable painting schedule for this project	
1.5	End customer approval is applicable for this tender. Vendor has to submit all credentials along with your offer to take up with our customer for approval of your firm. It may please be noted that, your priced bid will be considered only if you get approved by our customer before the date of Price bid opening.	
1.6	Tender will be evaluated on project wise package basis, i.e. Krishnapatanam main hoists and accessories + Mandatory spares (Enquiry Sl. Nos.10 to 40, 90 to 330 and 590 to 650) as one package and Vijayawada main hoists and accessories + Mandatory spares (Enquiry Sl. Nos.50 to 80, 340 to 580 and 660 to 720) as another package.	

2	Payment terms:	
	2.1 Indigenous	
	a) Payment term is 100% direct EFT payment after 45 days from the date of receipt and acceptance of materials. For Infn: Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders. b) Offers of indigenous Suppliers with payment terms as LC / Advance Payment/ BOE are liable for rejection.	

	2.2 Import	
	a) BHEL Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account. For Infn: Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.	
	b) In the case of Usance LCs (45 days from the date of receipt of documents, specified in PO, at BHEL bank) the loading will be considered @ 1.5% on the offered Value.	
	c) For LC at sight the loading will be considered @ 3.5% on the offered Value.	
	d) If the LC payment is insisted, TWO sets of original TCs to be submitted prior to dispatch and a certificate to that effect from BHEL should form a part of the documents to be negotiated. If this condition is not complied by the vendor, the offer is liable for rejection.	
	e) Specify the Quoted currency	
	f) Normally CAD at sight and Confirmed LC's are liable for rejection.	
<i>Note: LC will be opened one month prior to material readiness. Hence supplier shall intimate the material readiness accordingly for opening of LC. LC validity period will be 90 days and for any extension applicable charges will be deducted from your bills. This is for your kind infn.</i>		
3	Delivery Terms: The offer shall clearly indicate delivery period in fixed number of weeks/Months from the date of Purchase Order.	
4	LD Clause Confirm acceptance for Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional LD at the rate of 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value. For Info: Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value). Loading will be done for deviation. Loading value = (Mentioned LD in the enquiry - Accepted LD in the offer by the vendor) in % x Base value Imports: CFR order- LD will be calculated based on date to Bill of Lading/Airway Bill Indigenous: FOR order - LD will be reckoned from the date of LR/Invoice whichever is later. However inordinate delay in delivering the materials will not suffice the case.	
5	Offer Submission: 5.1 Indigenous: 1. Submit your FIRM competitive offer - (basic price & freight) with best possible delivery for Main Hoist on FOR respective site basis ONLY and Mandatory spares on FOR BHEL Trichy Stores only. 2. Price Variation Clause (PVC) is not acceptable and offer shall be rejected. 3. All Taxes, Duties, Service Taxes etc. payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our TIN No. 33243560005, TNGST No. 3560005, CST. No. 239383 Dt. 11-06-1991 & BHEL ECC No. AAACB4146PXM012, Assessment circle Tiruverambur. 3. Service tax, Octroi, Entry tax etc to be indicated in offer and is payable extra only on submission of documentary proof.	

	4. Any other extra charges like ED, CST/VAT etc. are to be indicated clearly.	
	5. The offer will be evaluated on total landed cost to BHEL, Trichy as below, Total landed cost = Base Price +Quoted Freight Charges (Vendor Scope) + applicable taxes + commercial loading as applicable+ Insurance charges (in BHEL Scope) - applicable tax credits	
	6. Offer shall be submitted in TWO PART bid system i.e Technical bid along with commercial conditions and price bid separately through BHEL e-Procurement route only.	
	For Infn: For interstate supplies C-Form will be issued	
	5.2 Imports: Offer shall be submitted on CFR/Chennai sea port basis. Material price & sea freight shall be indicated separately. For CFR terms, moved through CONTAINERS (Suppliers should clearly specify this in their offer) it would be presumed by BHEL that the freight charges quoted is on LILO (LINER IN LINER OUT) basis including extra charges, if any, like Container Imbalance Charges, Trade Imbalance charges or any other charges payable to the Liner. No other charges other than the quoted Freight rate will be paid by BHEL excepting applicable Terminal Handling Charges, Container cleaning Charges, DO charges to Shipping Liner at Discharge Port. 14 FREE DAYS FOR Container detention shall be provided. If any deviation is taken by Tenderer, a loading of 22% on the freight rate per MT shall be considered by BHEL for arriving at the Total landed Cost. In case of shipment through Containers on CFR basis, the BL should bearthe endorsement that "14 free days for Container Detention is applicable". Place of delivery - INTVT6 - CONCOR ICD should be clearly specified in the Bill of Lading.	
	The offer will be evaluated on total landed cost to BHEL-Trichy as below : Total landed cost =CFR/ Chennai + Customs duty+ Import Incidentals + Commercial loading as applicable - applicable tax credits	
	Offer shall be submitted in TWO PART bid system i.e Technical bid along with commercial conditions and price bid separately through BHEL e-Procurement route only.	
	Note: 1. Exchange rate for converting such offers to INR will as SBI TT selling rate as on the date of Technical/Un-priced bid opening date in case of two part (technical + price bid) bid 2. Multiple PO may also be placed considering the applicable custom duty structure of the respective requirement/Qty.	
	Tender shall be floated in two part bid system and the tender finalization shall be on project wise package basis. Krishnapatnam Main Hoist and Mandatory spares as one package and Vijaywada Main hoist and mandatory spares as another package	
6	Guarantee / Warranty Period	
	Guarantee clause 24 months from the date of supply or 18 months from the date of Commissioning of the equipment, Whichever is earlier.	
	Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period it may leads to rejection of offer.	
7	Performance Bank Guarantee: Submission of Performance Bank Guarantee as per the attached standard BHEL format is mandatory. 10% of material value as PBG shall be offered.	
8	Agency commission, if any should be clearly given in the offer (% on FOB).	
9	Repair & replacements	
	With in the guarantee period, vendor has to replace / rectify the defective/ damaged items on free of cost within a reasonable time of reporting from our	

	end. All incidental charges like freight, insurance and customs duty are to vendor account only. The defective parts and components shall be collected by vendor's Indian agent or / authorized person, only after completing the replacement / repairs. Pl note that the defective parts / components will not be returned back to vendor works by us due to procedural problems.	
10	Indicate the Port of shipment	
11	Indicate the Mill (Name, Location) & Country of origin	
12	One Indian agent can represent one foreign principal only and submit one offer for these tender items. Note: In order to maintain sanctity of the tender system it is mandatory that one agent cannot represent two suppliers or quote on their behalf in a particular tender enquiry. If any agent represents more than one supplier, all such offers will be rejected.	
13	Agency Commission : a) In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India, shall invariable be shown separately in the Performa invoice & shall be declared in techno-commercial offer itself and this will be paid by us in India, in Indian rupees, on satisfactory completion of the contract. b) For calculation of rupee equivalent for agency commission, exchange rate as prevailing on the date of order will be taken.	
14	The due date mentioned in the enquiry is the date of opening of techno-commercial bid. After the scrutiny of technical bids, price bids of only technically accepted offer shall be opened with prior intimation.	
15	Offer is to be submitted in TWO part bids system in the E-Procurement portal. Scan copy of the filled Annexures, Tender documents etc., shall be uploaded in the EPS portal	
16	Offers for this enquiry will be accepted through e-procurement (EPS) route only. For EPS system vendors have to arrange their own digital signature (DSC). BHEL will not provide DSC to any vendor.	
17	Lowest Prices received against BHEL tender need not be the technically acceptable one and in that case BHEL reserve the right not to consider the same	
18	Any other conditions which might have been quoted by the seller and are in contravention to the terms prescribed in the order and which have not been specifically accepted in by purchaser will not be applicable to the contract	
19	Risk Purchase Clause: BHEL at its option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute thereof. The supplier shall be liable for any loss which BHEL may sustain by reason of such risk purchases in addition to LD at the maximum rate mentioned in the LD clause above. Confirm your acceptance.	
20	Bidders are requested to submit their best competitive prices at the first instant itself and no revision of prices will be entertained after the tenders are opened.	
21	MSE VENDOR: MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM, II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure -1 where deemed validity of EM H certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer.	

22	Tender Finalization: The tender will be finalized based on the total cost to BHEL and L1 vendor will be arrived accordingly.	
23	Validity of offer: 120 days minimum from the date of techno commercial bid opening.	
24	BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.	
25	Reverse Auction: BHEL may finalize the tender through Reverse Auction Process.	
26	In case of order, Documents (Drawings, Data sheet & Quality plan in triplicate) shall be submitted within two weeks from the receipt of order	
27	For New Vendors (only offer of manufactures will be considered)	
	a. It is suggested that for new suppliers (not registered with BHEL) may register through online portal http://www.supplier.bhel.in and submit all relevant documents.	
	b. Offer from traders/stockist will not be considered. In case of foreign suppliers representing through their Indian/foreign agents, agency agreement should be submitted, along with registration documents else offer is liable for rejection. Agency agreement requirements attached as separate file and full compliance to it shall be ensured while submitting the same.	
	c. Along with the offer document the following documents shall be submitted in part-I bid. i. Mandatory requirements (Supplier must submit the below mentioned documents or else offer may be liable for rejection): 1. Details of the mill with equipment & facilities. 2. Past 3 year audited financial report. 3. Agency agreement (in case of Foreign or Indian agents). ii. Additional details required (not mandatory and these shall be submitted additionally for establishing the credentials) 1. Recent D&B or Creditreform reports (In case of import vendor) of mill, foreign agent or principal. 2. Approval certificates issued by international agencies or your customers such as Lloyds, TUV etc. 3. Product catalogue and other related documents.	
28	Fraud Prevention Policy Bidder along with its associate /collaborators /sub-contractors /sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.	
29	Cartel Formation All the firms should desist from forming cartel as the practice is prohibited under Section 3(3) (a) & (d) of the competition Act 2002. If any such instance is observed during this tender will attract disciplinary action as per BHEL policies.	
30	Authorisation for participation in EPS portal through DSC	
	a. E-Tender Participation requirements	
	Either Principal or authorised agent shall register their Digital Signature Certificate (DSC) (Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION). You are advised to pls go through the FAQ available in the web portal (https://bheleps.buyjunction.in). DSC shall be registered for the authorised person and all transaction done using that DSC against our tenders shall be taken as valid communication and shall be binding on principal/agent and is valid legally.	
	b. For foreign Principal	

	In case of Principal (being foreigner) they may apply for DSC through Indian embassy at their country and can register with us for participating in E-tenders. Details of the applicable procedure is available in the webpage http://www.cca.gov.in/cca/	
	c. For Indian agent	
	In case of agents participating/registering their DSC (of authorised person), it will be at the sole authorisation of principal to their agents to participate on their behalf and all transactions done using that DSC against our tenders shall be known as valid communication and shall binding on principal and is legally valid.	
	d. DSC Authorisation	
	Pls intimate the authorised person name, Mail ID for registering DSC with us to participate in E-Tenders	
31	Documents to be sent during dispatch required for Indigenous suppliers (after PO placement)	
	1. Invoice and LR.	
	2. One set of MTC, Original invoice (In case of VAT - Plus two copies, In case of CST – Plus one copy), LR copy shall be sent to MM/Purchase for bill processing.	
32	Documents to be sent during dispatch required for Import suppliers (after PO placement)	
	a. Bill Of Lading	
	b. Invoice, should show the description of the goods and the unit rate of each item as in the purchase contract. Against each item in the invoice and packing list, the serial number of the corresponding item in the purchase contract or as per order acknowledgement should be indicated.	
	c. Packing list must indicate case identification, case dimension, and case contents, no of bundles, gross and net weight.	
	d. Country of origin Certificate	
	e. ALL TEST CERTIFICATES ARE TO BE SUBMITTED IN COMPLETE SET AS INDICATED IN OUR SPECIFICATION/QAP	
	f. In case of Branch office / Liaison office in India bidding against this tender on behalf of their principal RBI clearance letter to be submitted.	
	All the above documents should be submitted in triplicate & in all documents Contract No., L.C. No. and Import License No. are to be indicated.	
33	Execution of the Order	
	a. BHEL will have the option to pre-inspect the materials at Supplier's works by BHEL's own inspector or by third party agency appointed by BHEL or BHEL's end customer/s. The mere act of the pre-dispatch inspection (PDI) does not absolve the Supplier from giving the specifications as agreed upon in the Purchase Order.	
	b. In the case of overseas suppliers Inspection call for carrying out the inspection shall be given 30 days before the scheduled contract delivery date. The Inspection date/s given by the Supplier shall be on firm basis. For local Suppliers the Notice period of Inspection shall be 10 working days.	
	c. In the event of any short supply, it shall be the responsibility of the supplier to deliver such short supplied/ missing items on Free-of-Cost basis at BHEL stores, including customs clearances at Indian Ports in the case of foreign suppliers.	
34	Role of Agents:	
	a. BHEL will deal directly with manufacturers only. Offers from Traders & Stockist will not be considered.	
	b. BHEL strongly discourages the engagement of Agents in India by foreign principals, to deal with BHEL, in BHEL's tenders.	
	c. BHEL, due to business reasons would ban, would have banned Indian agents from dealing with BHEL. Any foreign principal who engages such a banned agent, or an employee of the banned agency, or any other person connected with the banned agency, at any time during the tender proceedings, would be disqualified from the tender proceedings. The decision of BHEL in this regard shall be final and be binding on the OEM. Hence in their own interests, prospective tenderers may check with BHEL, the status of their proposed agent vis-à-vis BHEL.	

	d. In view of the requirement of BHEL, it is strongly suggested that in their own interest, foreign principals may desist from engaging any Indian agent and deal with BHEL directly and it is stressed that any Main producer proposing to deal with BHEL by engaging and through an Indian Agent does so at their own risk. BHEL shall in no way be responsible for any consequences that may arise to the foreign principal on account of the antecedents / actions	
35	Conditions for transportation: In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the transporter to freely release the consignment to BHEL by providing a "Surrender Bill of Lading".	
36	Resolution of Disputes a. If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations. b. If the parties fail to resolve their dispute or difference by such mutual consultation within 30 days of its occurrence, then, unless otherwise provided in the contract, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration of an officer in BHEL Trichy, appointed to be the arbitrator by the General Manager/MM BHEL Trichy. The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakhs (Rs. 1,00,000/-) c. Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., BHEL Trichy. d. Jurisdiction of the court will be from the place where the tender enquiry document has been issued, i.e., Trichy, India	
37	In the event of Force Majeure: a. Notwithstanding the provisions contained in other clauses, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure. For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, freight embargoes and Acts of GOD. b. If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. c. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side. d. In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs	

38	General terms	
	1. Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be submitted / uploaded in ENGLISH language only. If the documents submitted have other than English language, translation of the same shall be provided for evaluation.	
	2. A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages	
	3. All uploaded/submitted documents against this tender shall be signed in each page and sign shall be by principal / Mill.	
	4. Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such partial offer would not be considered in the enquiry for that item.	
	5. Any clarification regarding tender shall be done before Part –I due date itself through EPS portal itself, and in case of immediate non-availability of DSC you can clarify through with the following mail ids gireesh@bheltry.co.in or mradha@bheltry.co.in The above mail id is provided for initial clarification purpose only and no further correspondences shall be entertained through this mail ids.	
	6. Unloading of the materials is in the scope of BHEL. However Demurrages on account of delay in unloading due to improper packing, non-availability of proper dunnage, not adhering to the tender conditions and other reasons attributable to supplier shall be on supplier's accounts only.	
	7. Applicable INCO term for this tender is INCOTERMS 2010	
	8. Supplier has to submit the Non-Negotiable Document before the shipment reaches the port or else the demurrage and detention charges will be deducted from suppliers invoice.	
	9. The supplier shall arrange for packing suitably in all respects for normal transport by air / rail / road and Materials shall be suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports / store yards. In case of dispatch through air then materials shall be shipped in Air worthy packing condition. Packing charges will be supplier's account.	
	10.If any Supplier attempts to bribe, or pay commission, gift or any advantage or bring in undue influence either by himself or on his behalf any one including a stranger to the tender, in addition to instituting legal proceedings as per the extant laws prevailing, will disqualify the supplier from this tender and all future tenders of BHEL. Decision of the Purchaser would be final in this matter.	
	11.In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.	
	12.In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by EPS / e-Mail message. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original offer.	
	13.Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the tender. Otherwise, it will be treated as that all those terms and conditions as mentioned in the tender are acceptable in Toto.	
	14.Deviations shall be summarized and provided in a "Deviation Statement", listing the points and the deviation against each point.	
	15.At its option, BHEL may consider extending the due date/s for the tender openings. Sufficient notice would be given by BHEL for such extensions and it will be published as corrigendum in following websites, ➤ https://bheleps.buyjunction.in ➤ http://tenders.gov.in ➤ http://eprocure.gov.in	

	16. The price break-up should be in line with technical specification / scope of the tender. (Cost of material, packing charges, forwarding charges, freight shall be shown appropriately, as applicable). Insurance in BHEL scope.	
	17. In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.	
	18. Indigenous suppliers should submit the prices in Indian Rupees only. Import suppliers may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided.	
	19. In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes. Incomplete documents / offer will be rejected.	
	20. Evaluation of offer	
	a. The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.	
	b. Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.	
	c. For suppliers within Tamil Nadu state, as per prevailing VAT Act, VAT input credit is currently 5%. For suppliers from other Tamilnadu 2% CST will be paid against C-Form.	
	d. BHEL reserves the right to reject an offer due to unsatisfactory past performance during tender finalisation / execution of a contract at any of BHEL projects / units or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.	
	e. BHEL reserves the right to conduct negotiations on the "Price" and "Other Commercial Terms and Conditions" with the lowest ranked offerer at any time after the bid opening but before the release of the Purchase Order and If so required by BHEL, Supplier may have to share their costing sheet with BHEL.	
	f. In the event of any change in scope / quantity arising out of the discussions, offerer would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price	
	g. Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors	
39	Signed copy of THIRD PARTY NON-DISCLOSURE AGREEMENT attached to technical bid.	
40	Patent Right The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.	

41	Caution: ➤ The suppliers are severely cautioned to note that the price bid document accepts the price in figures only. It does not allow the supplier to write the value by words. Therefore all care shall be exercised by the supplier while filling in the figures. Once the price bid is opened no option is available for the supplier to retract the offer under any grounds. If a supplier, for any reason whatsoever approaches BHEL with a request for change in the price, it would be treated as going back on the offer submitted. In such cases, action would be initiated by BHEL for suspending further business dealings with such suppliers as per policy of BHEL which prevails at that point of time. ➤ The language in the tender documents downloaded by the Bidders shall at no point of time be changed, altered or modified in any manner by the Tenderer. If such changes are made by any tenderer, it shall be considered as tampering with BHEL's terms and the offer shall be summarily rejected, whenever it is noticed by BHEL. Such Bidders would be disqualified from the Bidding Process and their offers would be forfeited / Bank Guarantees invoked. They would also not be allowed to participate in future tenders of BHEL.
42	In the event of our customer order covering this tender being cancelled /placed on hold / otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution.
43	Offers shall be submitted in TWO PART bids system (TECHNO-COMMERCIAL BID + PRICE BID).The bidder shall submit his response through bid submission to the tender on e-procurement platform at https://bheleps.buyjunction.in within 14:00 Hrs (GMT +05:30) of the due date of this tender. The bidder would be required to register on the e-procurement market place https://bheleps.buyjunction.in and submit their bids online. SEALED COVER BIDS/ E-MAILS / FAX / MANUAL OFFERS WILL NOT BE ACCEPTED. Supplier shall upload any other tender documents in the E-Procurement Portal only.
On behalf of BHEL	To be filled & Signed by Original Manufacturer/Mill Name of the mill / Principal: Signature: (Affix Seal) (All conditions were read & clearly understood and agreed in totality with the mentioned deviations only)

Annexure C

MM/BOI/BHEL TRICHY

SPECIAL TERMS AND CONDITIONS

1. This tender is for the supply of Electrical Handling Equipments, DSL & Mandatory Spares shall be as per attached specification No. Supply of Manual Handling Equipment shall be as per the enclosed specification No. **MOU/TPBHEL/M_HOIST Rev.00, Annexure III** and following drawings:

For Krishnapatanam project: Drg No.0-99-502-40327/00

For Vijayawada project: Drg No.0-99-502-40336/00

2. Tender shall be floated in two part bid system and the tender finalization shall be on project wise package basis, i.e. Krishnapatanam main hoists and accessories + Mandatory spares (Enquiry Sl. Nos.10 to 40, 90 to 330 and 590 to 650) as one package and Vijayawada main hoists and accessories + Mandatory spares (Enquiry Sl. Nos.50 to 80, 340 to 580 and 660 to 720) as another package.
3. The tender shall be floated through e-Procurement system. The tender is in two parts. One part consisting of techno-commercial details and other with price details:

- (i) **Technical Bid** (Consisting of Technical Specifications viz. Product Specification Sheets/Brochures, OEM Certificate etc.) Bidders may name the files indicating the nature of content in pdf/zip format which would be required to be attached in e-tender.
- (ii) **Price Bid** – Prices to be quoted through e Procurement system only

For indigenous vendors prices shall be quoted on for Main Hoist on FOR respective site basis ONLY and Mandatory spares on FOR BHEL Trichy Stores only FOR/ BHEL Trichy basis, freight shall be quoted extra. Insurance shall be in BHEL scope.

For Import vendors prices shall be quoted on CFR/Chennai sea port basis, Materials price & sea freight shall be indicated separately.

A) Technical Tender (UN priced Tender)

All Technical details (eg. Eligibility Criteria requested (as mentioned below)) should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED. Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- (i) Technical Bid (without indicating any prices).
- (ii) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorization Form. While giving authorization to agent, to quote on their behalf, manufacturer has to give the reasons for not quoting directly against this tender.

Annexure C

B) Price Bid:

1. Price Bid to be submitted through our e Procurement system.
2. The price should be quoted for the accounting unit indicated in the e-tender document.

Note: It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation may result in REJECTION of offer.

For any queries regarding tender you may contact

1) Mr. Prateek Kumar Jain
Engineer /MM/BOI
BHEL Trichy
0431-257876
prateekkumar@bheltry.co.in

2) Mr.M Radhakrishnan
Sr.Manager/MM/BOI
BHEL Trichy
0431-2574086
mradha@bheltry.co.in

4. BHEL reserves the right to increase or decrease the tendered quantity.
5. BHEL reserves the right to negotiate the L1 rate.
6. BHEL reserves the right to re-float the tender opened, if L1 price is not the lowest acceptable price to BHEL inter-alia other reasons.
7. Vendors have to confirm to the Annexure B - Commercial Terms attached.
8. Point wise confirmation to enquiry conditions are to be submitted with technical offer.
9. Inspection by BHEL or BHEL nominated agency shall be carried out at vendor's works prior to despatch.

ANNEXURE-D

Technical Pre-Qualification Requirements:- Manual operated chain pulley block / ratchet lever– Minimum 20 T capacity

1) Manual Hoists with minimum capacity of 20 T should have been successfully put in use for at least one year in power plant or other industries e.g. refinery/steel/process/commercial etc. For this the supplier has to submit either of following supporting documents meeting above mentioned pre-qualifying requirement for chain pulley block & ratchet lever hoist separately:

- i) Copy of minimum two performance certificate from end user along with copy of related Purchase Order specifying that the product is running successfully for one (1) year from date of commissioning.

OR

- ii) Minimum three customer's/third party inspection reports along with purchase order copy meeting the minimum pre-qualifying requirement.

OR

- iii) Minimum three purchase orders (placed with minimum gap of 6 months from previous purchase order) from same purchaser meeting the minimum pre-qualifying requirement

2) Vendor should have in-house designing/manufacturing capability and having in house or outsourced testing facility.

3) To establish above, supplier shall submit the following for BHEL verification:-

- a) Vendor shall submit design documents to substantiate technical parameters specified in PQR, if the same is not mentioned in performance certificate/purchase order.
- b) Minimum two (2) nos. Purchase orders shall be submitted which should not be more than ten (10) years old as on date of bid submission, for establishing continuity in business. Supplier's Experience List of offered system on the enclosed format.
- c) In case documents submitted for meeting PQR are in language other than English, notarized English translation shall also be submitted.

General:

- 1) BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, as per BHEL evaluation procedure.
- 2) Final acceptance of the bidder is subject to BHEL and end customer's approval to consider in this tender.

Format for submission of credentials

Sl.No.	Description of Project	Brief Scope of work	P.O. Ref. No. & Date	Purchase order value (Rs).	Date of completion as per P.O.	Performance Certificate enclosed (Y/N)	Remark

Micro Small and Medium Enterprises (MSE) – Clause for NIT

In line with Gazette notification issued by Ministry of Micro Small and medium enterprises on MSE suppliers, the following special provisions shall be applicable.

20% of the tendered quantity is earmarked for MSE suppliers in this tender.

Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC / ST entrepreneurs.

In case MSE vendor participating in the tender quotes within the price band of LI + 15%, they will be allowed to supply the portion of the requirement subject to acceptance of LI price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.

MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either

1. EM II certificate having deemed validity (two years from the date of issue of acknowledgement in EM II) **or**
2. Valid NSIC certificate or EM II certificate along with CA certificate (Format enclosed) applicable for the year, certifying quantum of investment in plant and machinery within the permissible limits as per the act for relevant status (MICRO or SMALL) where the deemed validity of EM II is over.

Date to be reckoned for determining the deemed validity will be the last date of technical bid submission (Part 1 in case of two part bid).

Non submission of such documents will lead to consideration of their bid at par with other bidders and MSE status of such suppliers shall be shifted to NON MSE suppliers till the supplier submit this documents.

Documents should be notarized or attested by a Gazetted officer.

Definitions of MSEs owned by SC/ST is under:

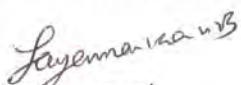
- ***In case of proprietorship firm, proprietor must be SC/ST.***
- ***In case of partnership firm, the SC/ST partners must be holding at least 51% shares in the unit.***
- ***In case of private limited companies, at least 51% share must be held by SC/ST promoters.***

Authorised Offices to Issue SC/ST certificate.

The caste/Tribe/Community certificate issued by the following authorities in the prescribed form for SCs/STs can be considered.

- District Magistrate/Additional District Magistrate/Collector/Deputy commissioner/Additional Deputy commissioner/Deputy collector/1st class stipendary magistrate/Sub divisional Magistrate/Taulka Magistrate/Executive magistrate/Extra Assistant commissioner.
- Chief Presidency magistrate/Additional chief presidency magistrate/Presidency magistrate.
- Revenue Officer not below the rank of thasildar.
- Sub-Divisional officer of the area where the individual and / or his family normally resides.

To avail the benefits of MSE under SC/ST category, the related documents as stated above should be submitted along with tender documents.


(B. Manivannan)
DGM/OS
Prepared by

Certificate by Chartered Accountant on letter head

This is to Certify that M/S
(hereinafter referred to as 'company') having its registered office at
..... is registered under MSMED Act 2006, (Entrepreneur
Memorandum No (Part-II) dtd:.....
Category: (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.S.O.1722(E) dated October 5, 2006 :
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:
Rs.....Lacs

{Strike off whichever is not applicable}

The above investment of Rs.....Lacs is within permissible limit of Rs.....Lacs forMicro / Small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/ Small) (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name -

Membership number -

Seal of Chartered Accountant

 BHEL - TRICHY	THIRD PARTY NON-DISCLOSURE AGREEMENT		Doc.No. : ISMS-04/TP/011
			Ver. No: 3.0 Rev. No: 00
	Date : 27 - 10 - 14		

THIRD PARTY NON-DISCLOSURE AGREEMENT

I, _____, on behalf of the _____ (Name of Company), acknowledge that the information received or generated, directly or indirectly, while working with BHEL, Trichy on contract is confidential and that the nature of the business of the BHEL, Trichy is such that the following conditions are reasonable, and therefore:

I warrant and agree as follows:

I, or any other personnel employed or engaged by our company, agree not to disclose, directly or indirectly, any information related to the BHEL, Trichy Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:

- Technical information: Methods, drawings, processes, formulae, compositions, systems, techniques, inventions, computer programs/data/configuration and research projects.
- Business information: Customer lists, project schedules, pricing data, estimates, financial or marketing data,

On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL, Trichy all documents and property of BHEL, Trichy, including: drawings, blueprints, reports, manuals, computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL, Trichy 's business, or in any way obtained by me during the course of contract. I further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.

This obligation of confidence shall continue after the conclusion of the contract also.

I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL, Trichy and are reasonable given the nature of the business carried on by the BHEL, Trichy I agree that this agreement shall be governed by and construed in accordance with the laws of country.

I enter into this agreement totally voluntarily, with full knowledge of its meaning, and without duress.

Dated at _____, this ____ day of _____, 20__.

Name

Company

Signature

Loading Criteria

Payment Term (Indigenous)	
If materials are receivable at Project Sites without PBG	<u>Option-1:</u> Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement <u>Option-2:</u> a) Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement. (or) b) Payment term is 90% direct payment after 45 days from the date of dispatch against submission of dispatch documents and balance 10% against site acknowledgement. For this option – (b), a loading of 2% on the 90% of the offered value shall be made.
If materials are receivable at Project Sites with PBG	<u>Option-1:</u> Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement and against 10% PBG valid for the warranty period. <u>Option-2:</u> a) Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement and against 10% PBG valid for the warranty period. (or) b) Payment term is 90% direct payment after 45 days from the date of dispatch against submission of dispatch documents and 10% PBG valid for the warranty period and balance 10% against site acknowledgement. For this option – (b), a loading of 2% on the 90% of the offered value shall be made.

Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Site/Stores with Consignee copy attached. In this case Loading will be 3% on the offered value. In case of Direct to Site (DTS), only 90% through bank will be considered.

Offers of indigenous Suppliers with payment terms as LC/Advance Payment are liable for rejection.

Liquidated Damages / Penalty

Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.
--

For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.
--

Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).

Guarantee / Warranty Period

Normally No deviation permitted and the deviated offers are liable for rejection.

Performance Bank Guarantee

Normally No deviation permitted and the deviated offers are liable for rejection.

<u>BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.</u>

Details of Gateway Airport with applicable Foreign Currency and Airlines for FSC payment **Schedule F**

Sch. No.	Country	CUR Code	Gateway Airport/s	Airlines with its Code For FSC Payment will be made	
D01	UK	GBP	London (Heathrow)	Air India	AI
D02	UK	GBP	New Castle	British Airways	BA
D03	UK	GBP	Oxford, Chellam	British Airways	BA
D04	UK	GBP	Bristol, Wellingborough	British Airways	BA
D05	UK	GBP	Birmingham	British Airways	BA
D06	UK	GBP	East Midlands	British Airways	BA
D07	UK	GBP	Manchester	British Airways	BA
D08	UK	GBP	Leeds	British Airways	BA
D09	UK	GBP	Glasgow	British Airways	BA
D10	France	EURO	Paris (Roissy) & Lyon	Air India	AI
D11	Sweden	EURO	Stockholm	Emirates	EK
D12	Sweden	EURO	Gothenberg & Malmo	Emirates	EK
D13	Italy	EURO	Rome, Milan	Carrier Used	Carrier Used
D14	Italy	EURO	Turin, Bologna, Florence	Carrier Used	Carrier Used
D15	Netherlands	EURO	Amsterdam, Rotterdam	Klm Airlines	KLM
D16	Austria	EURO	Vienna, Linz, Graz	Lufthansa	LH
D17	Belgium	EURO	Antwerp, Brussels	Singapore Airlines	SO
D18	Denmark	DKK	Copenhagen	Cathay Pacific	CX
D19	Japan	JPY	Tokyo, Osaka	Air India	AI
D20	Singapore	SGD	Singapore	Air India	AI
D21	Canada	CAD	Toronto	Carrier Used	Carrier Used
D22	Canada	CAD	Montreal	Carrier Used	Carrier Used
D23	USA	USD	New York, Boston	Air India	AI
D24	USA	USD	Chicago	Carrier Used	Carrier Used
D25	USA	USD	San Francisco, Los Angeles	Carrier Used	Carrier Used
D26	USA	USD	Atlanta, Houston	Carrier Used	Carrier Used
D27	Germany	EURO	Munich, Koln, Dusseldorf, Hannover, Hamburg, Stuttgart, Darmstadt, Manhiem, Nurnberg	Lufthansa	LH
D28	Germany	EURO	Frankfurt	Lufthansa	LH
D29	Germany	EURO	Berlin	Lufthansa	LH
D30	Switzerland	SFR	Basle, Zurich, Geneva	Swiss World Cargo	LX
D31	Spain	EURO	Barcelona	Emirates	EK
D32	Australia	AUD	Sydney	Qantas Airlines	QF
D33	Australia	AUD	Melbourne	Qantas Airlines	QF
D34	Australia	AUD	Perth	Qantas Airlines	QF
D35	Czech	EURO	Prague	Lufthansa	LH
D36	Hong Kong	HKD	Hong Kong	Air India	AI
D37	New Zeland	NZD	Auckland	Carrier Used	Carrier Used
D38	Russia	USD	Moscow	Carrier Used	Carrier Used
D39	South Korea	USD	Kimpo International, Incheon	Air India	AI
D40	Finland	EURO	Helsinki	Finnair Cargo	AY
D41	Romania	EURO	Bucharest	Carrier Used	Carrier Used
D42	Norway	EURO	Oslo	Carrier Used	Carrier Used
D43	Ireland	EURO	Dublin	Carrier Used	Carrier Used
D44	Israel	USD	Tel Aviv	El Al Israel	LY
D45	UAE	USD	Dubai	Air India	AI
D46	Oman	USD	Muscat	Air India	AI
D47	Egypt	USD	Cairo	Carrier Used	Carrier Used
D48	Taiwan	USD	Taipei	Carrier Used	Carrier Used
D49	Ukraine	USD	Kiev	Lufthansa	Carrier Used
D50	China	USD	Shanghai, Shenzhen	Carrier Used	Carrier Used
D51	Philippines	USD	Manila	Carrier Used	Carrier Used
D52	Malaysia	USD	Kualalumpur, Pe Nang	Malaysia Airlines	Carrier Used
D53	Cyprus	USD	Larnaca	Carrier Used	Carrier Used
D54	South Africa	USD	Johannesberg, Durban	Carrier Used	Carrier Used
D55	Slovakia	EURO	Bartislova	Lufthansa	LH
D56	Saudi Arabia	SAR	Riyadh	Saudi Arabia Airlines	SV
D57	Turkey	EURO	Istanbul	Turkish Airlines	TK
D58	Thailand	USD	Bangkok	Thai Airways	TG
D59	Brazil	USD	Sao Paulo, Rio De Janeiro	Emirates	EK