



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE :2577645  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: srchandran@bheltry.co.in  
Web:

429-002/A

	<b>Enquiry No</b> 2681500009 - 79	<b>Enquiry Date</b> 23.07.2015	<b>Due Date for Quotation</b> 22.08.2015
<p>Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. <b>Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date &amp; Enq. Due date must be written on all three covers.</b></p>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	SPECIFICATION FOR 5T TROLLEY ASSEMBLY WITH HOIST, CT, LT MECHANISM WITH MAINTENANCE DEVICES FOR OUTDOOR GANTRY CRANE as per the Qualifying Criteria in Annexure-I and Specification & Scope of work as per Sl.No:1 to 1.4.7 in Annexure-II.	NO	1.000	1.00	30.12.15
20	SPECIFICATION FOR 5 T TROLLEY ASSEMBLY WITH HOIST, CT, LT MECHANISM WITH MAINTENANCE DEVICES FOR OUTDOOR GANTRY CRANE as per the Qualifying Criteria in Annexure-I and Specification & Scope of work as per Sl.No:2 to 2.4.7 in Annexure-II.	NO	1.000	1.00	30.12.15
30	SPECIFICATION FOR LT MECHANISM COMPONENTS FOR 5T OUTDOOR GANTRY CRANE as per the Qualifying Criteria in Annexure-I and Specification & Scope of work as per Sl.No:3 to 3.9 in Annexure-II.	NO	1.000	1.00	30.12.15

**General Note:**

1. Please submit your detailed offer in two part bid system i.e Part-I. Technical bid+ Checklist (Annexure-A) + unpriced bid with indicating taxes & duties (Annexure-B) in a sealed cover super scribing on the cover as "TECHNICAL & COMMERCIAL BID / PART-II"  
Part-II. Priced offer in another separate sealed cover super scribing on the cover as Part-II

Both the covers shall be duly super-scribed with tender reference and due date of opening. These covers shall be put in a single cover duly super-scribed with tender reference and due date of opening and addressed to us.

2. Point-to-point confirmation to BHEL's specification and commercial terms & conditions shall be provided Annexure-A. All the Annexures should be filled and submitted along with the technical bid (no row shall be left blank), else your offer is liable for rejection.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,  
For BHARAT HEAVY ELECTRICALS LIMITED

**P.G. ABRAHAM VICTOR** MANAGER / PURCHASE (FOSSIL BOILERS)



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Page  
2/3

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2681500009 / 23.07.2015

23505

3. Offers with validity of less than 120 days and non-acceptance of LD, RP clause, PBG & Payment terms, will lead to rejection of submitted offer.

4. If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.

5. All clarifications may be sought at least ten days prior to tender due date, from the undersigned with due written request.

6. BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions covering RA are given in commercial terms and conditions (Annexure-A/Point no.17)

7. Corrigendum if any, with respect to this tender will be hosted only in the website <http://www.bhel.com> or <http://tenders.gov.in>. You are requested to visit the website regularly for updates.

8. BHEL will consider MSME vendor as per Government guidelines.

9. Vendors are requested to avoid the following points while submitting the Bid Documents:

- Loose or spiral bound bid documents are not encouraged.
- In case of any corrections/overwriting in the tender documents, the same shall be duly attested by the bid submitter.

10. Vendors representative having proper ID proof and authorization letter shall attend the tender opening.

#### List of Attachments:

- Qualifying Criteria Annexure-I
- Technical Specification Annexure-II
- Commercial Terms and Conditions - Annexure-A
- Price Format-Annexure-B
- CA Certificate for MSE Vendors-Annexure-III

All the tenders may be addressed to the following address:

**The Tender Opening Cell / MM  
Room No: 26, Building 24, Ground Floor  
Bharat Heavy Electricals Limited  
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

  
**P.G. ABRAHAM VICTOR**  
MANAGER / PURCHASE  
(FOSSIL BOILERS)



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3/3  
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Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only tender\_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

**Enclosures:**

"LD clause has to be confirmed without fail."

The offers should reach us 30 minutes before the time of opening of tenders.  
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,  
For BHARAT HEAVY ELECTRICALS LIMITED

**P.G. ABRAHAM VICTOR**  
Senior Manager

MANAGER / PURCHASE  
(FOSSIL BOILERS)

**ANNEXURE - I**

**SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND COMPONENTS FOR LT MECHANISM OF 5T GANTRY CRANE**

**QUALIFICATION CRITERIA**

<b>S.No</b>	<b>Description</b>	<b>Vendor to specify details</b>
1	Only those vendors, who have Supplied and commissioned atleast one 5TON OR HIGHER CAPACITY, 14 M OR HIGHER SPAN SEMIGANTRY OR GANTRY CRANE in the past five years and such machine should be working satisfactorily for a minimum period of one year after completion of commissioning, as on the date of opening of this tender.	
2	The vendor should submit following details which are necessary for qualifying their offer.	
2.1	Name and postal address of the customer / company where similar equipment commissioned.	
2.2	Name and designation of the contact person of the customer.	
2.3	Phone, FAX no and email address of the contact person of the customer.	
2.4	Along with Technical offer, the Vendor should submit performance certificate from minimum <b>one</b> customer for the satisfactory performance of the same, supplied to them in the customers letter head.	
3	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.	

## ANNEXURE - II

## SUPPLY OF TROLLEY ASSEMBLY WITH HOIST &amp; CT MECHANISM AND LT MECHANISM COMPONENTS AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE

## SPECIFICATION &amp; SCOPE OF WORK

S.No	Description	Vendor to specify details
1	<b>SPECIFICATION FOR 5 T TROLLEY ASSEMBLY WITH HOIST AND CT MECHANISM WITH MAINTENANCE DEVICES FOR GANTRY CRANE</b>	
	<b>APPLICATION:</b> The trolley assembly is required to replace in the existing outdoor gantry crane.	
1.0	<b>SCOPE OF SUPPLY:</b> Trolley assembly with hoist mechanism	
1.1	<b>CT mechanism detail:</b>	
1.1.1	CT speed:15 m/min	
1.1.2	Wheel gauge / span: 2500 mm	
1.1.3	Wheel base:1600 mm	
1.1.4	Wheel size:250 mm dia- 4 Nos	
1.1.5	CT rail size: 50mm Square bar (For reference only. Not supplier scope)	
1.1.6	Wheel assembly: As per BHEL drawing 3M02R0011993 (Enclosed).	
1.1.7	CT Gear box type & size: Vertical VR 400 - 1 No. (All the gears shall be helical)	
1.1.8	CT Motor (1 No): CT Motor (1 No): 3.7 KW (min), frame -132 M , 6 pole, 3Ph 415V 50Hz, 300 starts/hour , S4 Duty , Duty Factor - 40% CDF, Terminal cover at side , Motor shall be of high efficient.	
1.1.9	Type of CT motor: Slip Ring induction motor	
1.1.10	CT BRAKE: 160 mm 18 KG thruster brake with brake drum - 1 No	
1.1.11	Couplings: Between motor & gearbox- Full gear coupling. Between gearbox & wheel - Half gear coupling	
1.1.12	Limit Switch: Lever type one no.	
1.1.13	Rotor cutting resistance - punched plate stainless steel grid resistance box - series 5 steps tapping , continuous rating , all Weldings between resistance shall be TIG type, resistance shall be suitable for outer door application , made water proof ,5 steps shall be provided. All the resistance steps values , calculation shall be given in the Drawing Approval	
1.2	<b>HOIST MECHANISM DETAIL:</b>	
1.2.1	Hoist speed:15m/ min	
1.2.2	Height of lift: 10 mtr	
1.2.3	Hoist Motor (1 No): Hoist Motor (1 No): 15 KW (min), frame -180 L, 6 pole, 3Ph 415V 50Hz, 300 starts/hour , S4 Duty , Duty Factor - 40% CDF, Terminal cover at side , Motor shall be of high efficient.	
1.2.4	Hoist Motor type: Slip Ring induction motor	
1.2.5	Gear box size: Horizontal HR500 - 1 No (All the gears shall be helical)	
1.2.6	Hoist rope size & falls: 12mm dia 4 falls. Sufficient rope for 10 m height of lift to be supplied.	
1.2.7	Hook shall be with safety latch.	
1.2.8	Hoist rope drum size: 320mm dia. On both ends of rope drum, flange to be provided to a height of 100mm	
1.2.9	Couplings: Between motor & gearbox- Full gear coupling	

ANNEXURE - II		
SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND LT MECHANISM COMPONENTS AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE		
SPECIFICATION & SCOPE OF WORK		
S.No	Description	Vendor to specify details
	Between gearbox & rope drum- Half geared rope drum coupling or spline.	
1.2.1	Pulley Sizes: Equaliser Pulley - 200 mm dia minimum Hook Block Pulleys - 320 mm dia minimum	
1.2.11	Hook Block: 5 Ton Hook Block	
1.2.12	Hoist Brake: 250 mm dia DC Electromagnetic Brake with brake drum - 1 No	
1.2.13	Limit Switches: Rotary and Gravity each one no to be provided. Dimensions of rotary shall be as per attached drawing.	
1.2.14	Rotor cutting resistance - punched plate stainless steel grid resistance box - series 5 steps tapping , continuous rating , all Weldings between resistance shall be TIG type, resistance shall be suitable outer door application , made water proof , 5 steps shall be provided. All the resistance steps values , calculation shall be given in the Drawing Approval	
1.2.15	Portable Device to measure the current drawn by motor- 4 quantities	
1.2.16	Portable device to measure the insulation reistance of motors- 3 quantities	
1.2.17	Portable device for drilling -3 quantities	
1.2.18	All the instruments shall be supplied with all accessories test certificate , warranty card etc.	
1.3	<b>MAKES OF BOUGHT-OUT ITEMS</b>	
1.3.1	Motors: GEC/Bharat Bijlee/Siemens/Kirloskar/MARATHON	
1.3.2	Couplings: WMI/ALFLEX/FENNER	
1.3.3	Electrohydraulic thruster Brakes: OMEGA/ELECTROMAG/SPEED-O-CONTROL	
1.3.4	DCEM Brake & Brake Panel: Only BCH	
1.3.5	Limit Switches: BCH/SKC/SOC	
1.3.6	Oil Seals: PARKER /MERKEL/ SIMRIT FREDENBERG/ BUSHAK SHAMBAN/ HUNGER/ HALLITE/ JAMES WALKER /SKF ECONOMOS	
1.3.7	Resistance - BCH/Omega/ Speed - O- Controls/OHMARK	
1.3.8	Current measuring device - Fluke 325 clamp meter / AMPROBE 52NAV / KYORITSU 2046R/ kleintools CL2100	
1.3.9	IR measuring device - Cambridge instruments and engineering co Model: 444/ KYORITSU 3321A / Fluke 1587	
1.3.10	Drilling device with bits- Bosch Gsb 16 Re , DEWALT DW235G	
1.4	Both gearbox casing shall be of fabricated type and gears in all stage shall be of helical	
1.4.1	Handrails to 1m height & Spring Buffer (4 Nos) are to be provided in the CT Trolley.	
1.4.2	Standard to be followed IS: 3177/1999 & IS: 807/2006. For motors IS 325/1996 , IS 1231/1974 For control elements - IS 13947 /2004	
1.4.3	Painting of trolley frame: 1. One coat of red oxide with 48 hours of curing after painting. 2. Two coats of Deep orange enamel paint with intermittent curing of minimum 16 hours.	
1.4.4	Pre-dispatch Inspection shall be offered.	
	The following drawing to be submitted for approval before manufacture. 1. Crab Frame	

**ANNEXURE - II**

**SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND LT MECHANISM COMPONENTS AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE**

**SPECIFICATION & SCOPE OF WORK**

S.No	Description	Vendor to specify details
1.4.5	2. CT wheel Assembly	
	3. CT Gearbox Assembly	
	4. CT Mechanism Assembly	
	5. Hoist Gearbox Assembly	
	6. Hoist Mechanism Assembly	
	7. Rope drum	
	8. 5 Ton Hook Assembly	
	9. GA drawing of Trolley Assembly	
1.4.6	Spares: The following spares to be provided along with supply 1. Oil Seals - 1 No. of each variety used in the trolley assembly.	
1.4.7	Note: No electrical control panel required	
2	<b>SPECIFICATION FOR 5 T TROLLEY ASSEMBLY WITH HOIST AND CT MECHANISM WITH MAINTENANCE DEVICES FOR GANTRY CRANE</b>	
	<b>APPLICATION:</b> The trolley assembly is required to replace in the existing Outdoor Gantry crane.	
2.0	<b>SCOPE OF SUPPLY:</b> Trolley assembly with hoist mechanism	
2.1	<b>CT mechanism detail:</b>	
2.1.1	CT speed:15 m/min	
2.1.2	Wheel gauge / span: 1600 mm	
2.1.3	Wheel base:1600 mm	
2.1.4	Wheel size:250 mm dia- 4 Nos	
2.1.5	CT rail size: 50mm Square bar (For reference only. Not supplier scope)	
2.1.6	Wheel assembly: As per BHEL drawing 3M02R0011993 (Enclosed).	
2.1.7	CT Gear box type & size: Vertical VR 320 - 1 No. (All the gears shall be helical)	
2.1.8	CT Motor (1 No):	
	CT Motor (1 No): 3.7 KW (min), frame -132 M , 6 pole, 3Ph 415V 50Hz, 300 starts/hour , S4 Duty , Duty Factor - 40% CDF, Terminal cover at side , Motor shall be of high efficient.	
2.1.9	Type of CT motor: Slip Ring induction motor	
2.1.10	CT BRAKE: 160 mm 18 KG thruster brake with brake drum - 1 No	
2.1.11	<b>Couplings:</b>	
	Between motor & gearbox- Full gear coupling, Between gearbox & wheel - Half gear coupling	
2.1.12	Limit Switch: Lever type one no.	
2.1.13	Rotor cutting resistance - punched plate stainless steel grid resistance box - series 2 steps tapping , continuous rating , all Weldings between resistance shall be TIG type, resistance shall be suitable outer door application , made water proof ,2 steps shall be provided. All the resistance steps values , calculation shall be given in the Drawing Approval	
2.2	<b>HOIST MECHANISM DETAIL:</b>	
2.2.1	Hoist speed:15m/ min	
2.2.2	Height of lift: 8 mtr	
2.2.3	Hoist Motor (1 No):	
	Hoist Motor (1 No): 15 KW (min), frame -180 L, 6 pole, 3Ph 415V 50Hz, 300 starts/hour , S4 Duty , Duty Factor - 40% CDF, Terminal cover at side , Motor shall be of high efficient.	

**ANNEXURE - II**

**SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND LT MECHANISM COMPONENTS  
AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE**

**SPECIFICATION & SCOPE OF WORK**

S.No	Description	Vendor to specify details
2.2.4	Hoist Motor type: Slip Ring induction motor	
2.2.5	Gear box size: Horizontal HR500 - 1 No (All the gears shall be helical)	
2.2.6	Hoist rope size & falls: 12mm dia 4 falls. Sufficient rope for 8m height of lift to be supplied.	
2.2.7	Hook shall be with safety latch.	
2.2.8	Hoist rope drum size: 320mm dia. On both ends of rope drum, flange to be provided to a height of 100mm	
2.2.9	Couplings: Between motor & gearbox- Full gear coupling Between gearbox & rope drum- Half geared rope drum coupling or spline	
2.2.10	Pulley Sizes: Equaliser Pulley - 200 mm dia minimum Hook Block Pulleys - 320 mm dia minimum	
2.2.11	Hook Block: 5 Ton Hook Block	
2.2.12	Hoist Brake: 250 mm dia DC Electromagnetic Brake with brake drum - 1 No	
2.2.13	Limit Switches: Rotary and Gravity each one no to be provided. Dimensions of rotary shall be as per attached drawing.	
2.2.14	Rotor cutting resistance - punched plate stainless steel grid resistance box - series 2 steps tapping , continuous rating , all Weldings between resistance shall be TIG type, resistance shall be suitable outer door application , made water proof , 2 steps shall be provided. All the resistance steps values , calculation shall be given in the Drawing Approval	
2.2.15	Portable multimeter Device to measure the current drawn by motor- 4 quantities	
2.2.16	Portable device to measure the power quality of motors- 1 quantity	
2.2.17	All the instruments shall be supplied with all accessories test certificate , warranty card ,etc.	
2.3	<b>MAKES OF BOUGHT-OUT ITEMS</b>	
2.3.1	Motors: GEC/Bharat Bijlee/Siemens/KEC/MARATHON	
2.3.2	Couplings: WMI/ALFLEX/FENNER	
2.3.3	Electrohydraulic thruster Brakes: OMEGA/ELECTROMAG/SPEED-O-CONTROL	
2.3.4	DCEM Brake & Brake Panel: Only BCH	
2.3.5	Limit Switches: BCH/SKC/SOC	
2.3.6	Oil Seals: PARKER /MERKEL/ SIMRIT FREDENBERG/ BUSHAK SHAMBAN/ HUNGER/ HALLITE/ JAMES WALKER /SKF ECONOMOS	
2.3.7	Resistance - BCH/ Omega/ Speed - O- Controls/OHMARK	
2.3.8	Multimeter measuring device - Fluke 117/KYORITSU 1012/kleintools MM2300 / Cambridge instruments and engineering co Model: 505	
2.3.9	Power quality meter -Fluke 345/ Amprobe DM-II PLUS 1000A/KYORITSU 6315	
2.4	Both gearbox casing shall be of fabricated type and gears in all stage shall be of helical	
2.4.1	Handrails to 1m height & Spring Buffer (4 Nos) are to be provided in the CT Trolley.	

**ANNEXURE - II**

**SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND LT MECHANISM COMPONENTS AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE**

**SPECIFICATION & SCOPE OF WORK**

S.No	Description	Vendor to specify details
2.4.2	Standard to be followed IS: 3177/1999 & IS: 807/2006. For motors IS 325/1996 , IS 1231/1974 For control elements - IS 13947 /2004	
2.4.3	Painting of trolley frame: 1. One coat of red oxide with 48 hours of curing after painting. 2. Two coats of Deep orange enamel paint with intermittent curing of minimum 16 hours.	
2.4.4	Pre-dispatch Inspection shall be offered.	
2.4.5	The following drawing to be submitted for approval before manufacture. 1. Crab Frame 2. CT wheel Assembly 3. CT Gearbox Assembly 4. CT Mechanism Assembly 5. Hoist Gearbox Assembly 6. Hoist Mechanism Assembly 7. Rope drum 8. 5 Ton Hook Assembly 9. GA drawing of Trolley Assembly	
2.4.6	Spares: The following spares to be provided along with supply 1. Oil Seals - 1 No. of each variety used in the trolley assembly.	
2.4.7	Note: No electrical control panel required	
3	<b>SPECIFICATION FOR LT MECHANISM COMPONENTS FOR 5T GANTRY CRANE.</b>	
	<b>APPLICATION:</b> The LT mechanism assembly is required to replace in the existing outdoor gantry crane.	
3.1	<b>SCOPE OF SUPPLY:</b> LT mechanism components full set.	
3.1.1	Drive wheel assembly with coupling fitted - 2 Nos	
3.1.2	Non drive wheel assembly - 2 Nos	
3.1.3	Gear box assembly with coupling & brake drum fitted in input shaft and coupling in output shaft-2 nos( Right & left handed each 1)	
3.1.4	Motor with coupling fitted - 2 Nos	
3.1.5	Brake unit-2 nos.	
3.2	<b>Specification details:</b>	
3.2.1	LT speed: 40 Mtrs / min.	
3.2.2	Wheel dia.: 400 mm. (REFER SL NO-5 IN THE ENCLOSED DRAWING No. 3 M 02R 00 11993) WHEEL TO BE FORGED AND TREAD PORTION TO BE HARDENED TO 300-350 BHN; SIZE AS PER DRAWING No.3 M 02R 00 11993. AXLE/SHAFT TO BE OF 45C8 AS PER IS-7283 AND SIZE AS PER DRAWING No. 3 M 02R 00 11993 For wheels and shafts supplier to provide certificates for material composition from government approved lab and certificate of heat treatment including hardness after heat treatment.	
3.2.3	Rail size:90 lbs/ yd.	
3.2.4	Wheel assembly: As per BHEL drawing :3-M-02R-0011993.	

**ANNEXURE - II**

**SUPPLY OF TROLLEY ASSEMBLY WITH HOIST & CT MECHANISM AND LT MECHANISM COMPONENTS  
AND MAINTAINENCE DEVICE FOR 5T GANTRY CRANE**

**SPECIFICATION & SCOPE OF WORK**

S.No	Description	Vendor to specify details
3.2.5	Gear box type & size: VR 450 (Vertical) Size : VR 450 MM (Input to output center distance) Number of stage : 3 HP rating : 7.5 HP (Minimum) Casing type : MS fabricated Type of gears : Helical gear in all stage. Quantity required : 2 Nos (Left and Right each 1 no.) Brake drum : 160mm diameter Brake drum and coupling fitted in input shaft and coupling in output shaft. Coupling : Full gear coupling 102 size in input shaft and Full gear coupling 103 size in output shaft Oil level gauge, drain plug and inspection cover shall be provided. Lifting eye shall be provided at the top of the gearbox. Extension of input shaft on both sides and output shaft on one side only. Casing shall be of three parts and shall be with one horizontal split at output shaft and a vertical split from input to output shaft. All stage pinions shall be integral with shaft. The output shaft centre to gearbox bottom shall be 175 mm Maximum. All bearing covers shall be fitted with gear box casing by hex. screws. All shafts shall be fitted with SRDG ball bearings and shall be 63xx series. All bearings shall be SKF/NBC/FAG/NTN make. Before manufacture drawing shall be submitted for our approval.	
3.2.6	LT motor: Power: 3.3 kW (Minimum) Frame Size: 132M, Power supply: 415V, 3 Phase, 50 Hz No of poles- 6 poles Crane Duty -S4 Duty Type: Slip Ring Induction Motor 300 Starts/hour, Class F insulation, 40% CDF, IP55 Coupling - Full gear coupling 102 size	
3.2.7	Brake Units- A.C. ELECTRO HYDRAULIC DOUBLE SHOE, SPRING LOADED THRUSTOR BRAKE UNIT suitable for diameter 160mm brake drum (suitable for 400/440 Volts, 3 Phase AC Supply) with thrustor and 2 spare tie-rods. THRUSTOR CAPACITY- 18 kg.	
3.3	<b>COUPLINGS:</b>	
3.3.1	Between motor & gearbox: Full gear coupling 101 / 102.	
3.3.2	Between wheel & gearbox: Full gear coupling size 103.	
3.3.3	Brake unit: 160 mm dia 18 KG thruster brake.	
3.4	Motor make:GEC/Bharat Bijlee/Siemens/KEC/MARATHAN	
3.6	Note: No electrical control panel required.	
3.7	Stand ard to be followed: IS 3177 / 1999.	
3.8	Drawing to be submitted for approval before manufacture.	
3.9	Pre-dispatch Inspection shall be offered before despatch.	

**BHARAT HEAVY ELECTRICALS LIMITED TIRUCHIRAPALLI**  
**CAPITAL PURCHASE**

Annexure-A

**ACCEPTANCE OF COMMERCIAL TERMS AND CONDITIONS BY THE VENDORS.**

(This should be essentially filled in and sent along with the techno-commercial offer without fail. If this check list is not filled and submitted along with techno-commercial offer (Part I) or if the vendor does not confirm acceptance to the terms and conditions proposed herein, BHEL reserves the right to reject such offers)

**CHECK-LIST FOR VENDORS**

SI No	DESCRIPTION
1.	<p>The Bidders shall submit their offer in <b>TWO INNER ENVELOPES</b> as indicated below which shall be sealed in one outer envelope.</p> <ul style="list-style-type: none"> <li>❖ <b>Envelope I:</b> This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "<b>Part I - Technical and commercial bid</b>", indicating Enquiry No., Due Date and Address &amp; Reference of the Bidder.</li> <li>❖ <b>Envelope II:</b> This sealed envelope should contain <b>price details</b>. This envelope should be clearly marked "<b>Part II - Price bid</b>", indicating Enquiry No., Due Date and Address &amp; Reference of the Bidder. This part should contain the schedule of price particulars and must be co-related to the technical details provided in Part I.</li> </ul> <p>All the two envelopes (Part I&amp;II) shall be put in one cover, duly sealed, super scribing as "<b>Part I and Part II of Enquiry No., due date of opening</b>" and the address and reference of the Bidder. The offer received without the above guidelines, will not be considered for opening.</p> <p>Offers will be accepted &amp; received till 14.00 hrs on the due date. Therefore Vendors shall ensure to submit the offers before this time. Late offers will not be considered.</p> <p>The Tenders should be addressed to the following address to</p> <p align="center"><b>The Tender Opening Cell/MM  Room No-26 , Building – 24 , Ground Floor  Bharat Heavy Electrical Limited  Tiruchirapalli- 620014 .</b></p> <p>In case personal delivery of the offer, it shall be dropped into the respective box after duly entering the data in the system kept in room no 26 .</p> <p>Vendors are requested to avoid submission of offers thro email / fax . In case of any unavoidable situation, offers shall be sent thro email to the following mail ID only "<b>tender_cell@bheltry.co.in</b> "</p> <p>As such Tenders are being opened by Common Tender opening Cell , offer covers should be sealed with tender's distinctive seal and super scribed with correct Tender NO, item of supply and due date of Opening</p> <p>Tenders should be free from <b>CORRECTIONS AND ERASURES</b>. Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. In case of any difference between amount quoted in words and figures, amount quoted in words shall prevail.</p> <p>Offers should be in <b>ENGLISH</b> and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in <b>ENGLISH</b> or otherwise, the offers will not be considered.</p>
2.	<p><b><u>OPENING OF TENDERS</u></b></p> <p>The Part I- Technical &amp; commercial bid would be opened on the Tender opening date.</p> <p>Part-II, Price bid of technically suitable Bidders alone would be opened after complete evaluation of Part-I. Hence the Bidders are required to submit their best competitive price in the price bid in a sealed cover (Part-II). In case of necessity BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions covering RA are given in this Annexure- I <b>(Point no.17)</b>.</p> <p>Date and time of Price Bid (Part-II) opening / RA conducting date shall be intimated to the technically and commercially acceptable bidders only. Clarifications if any required by BHEL for Technical evaluation would be sought from bidders before opening of Part II - Price Bid/ RA</p>
3.	<p><b><u>TAXES AND DUTIES :</u></b></p> <p>All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST &amp; 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 &amp; BHEL ECC No. AAACB4146PXM012, Service Tax Reg No (STC)- AAACB4146PST006. Assessment circle Tiruverambur.</p> <p><b>Cenvat credit &amp; VAT credit</b> (for Indian Bidders only): If any Excise Duty is payable, the chapter head / sub-head reference and the rate of the duty should be quoted. If the tenderer is availing <b>CENVAT</b> credit for his input materials, the effect of proforma credit should be passed on to the purchaser</p> <p><b>Income Tax applicable</b></p> <p>Any service charges payable towards supervision of E&amp;C, training, performance prove-out etc., will be released after deduction of Income Tax as per Indian Income Tax Act / as per the Govt. of India rules and TDS certificate will be issued by BHEL for such deductions. Applicable service tax on E&amp;C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier</p>

<b>No row shall be left blank. Please indicate NA, in case the item is “not applicable”</b>		<b>Vendor's confirmation</b>
4.	<p><b>Validity:</b> Validity of the offer should be 120 days from the date of tender opening.</p>	
5.	<p><b>Release of Purchase Order:</b> ➤ Orders will be placed respective L1 vendor for each line item.</p>	
6.	<p><b>Payment terms for Supply Portion</b> 100% Payment within 45-90 days after receipt and acceptance of supplied material against submission of 10%PBG for total order value.</p> <p style="color: red;">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.</p>	
7.	<p><b>Performance Bank Guarantee (PBG):</b> The Bidder, in the event of an order, should furnish a Bank Guarantee from an Indian Bank approved by BHEL, at no extra cost in a format prescribed by BHEL, along with the order, for an amount equivalent to <b>10% (Ten percent)</b> of the value of the contract. The PBG shall be valid for a period of 18 months from the date of dispatch or <b>12 months</b> from the date of receipt / acceptance / commissioning of the equipment at BHEL, Tiruchi whichever is more, with a claim period of two months.</p> <p>The Performance Bank Guarantee shall be obtained from any one of the following banks which is a member bank in our consortium of banks.</p> <p><b>LIST OF CONSORTIUM BANKS</b> 1.DEUTSCHE BANK 2.HDFC BANK 3.ANZ GRINDLAYS BANK 4.CITI BANK 5.STANDARD CHARTERED BANK 6.BANK OF AMERICA 7.ABN AMRO BANK 8.IDBI LTD 9.ICICI BANK LTD 10.THE HONGKONG AND SHANGHAI BANKING .CORPORATION LTD.</p> <p><b>LIST OF NATIONALISED BANKS</b> 1.ALLAHABAD BANK 2.ANDHRA BANK 3.BANK OF INDIA 4.BANK OF BARODA 5.BANK OF MAHARASTRA 6.BHARATH OVERSEAS BANK 7.CANARA BANK 8.CENTRAL BANK OF INDIA 9.CORPORATION BANK 10.DENA BANK 11.INDIAN BANK 12.INDIAN OVERSEAS BANK 13.OREINTAL BANK OF COMMERCE 14.PUNJAB NATIONAL BANK 15.PUNJAB &amp; SIND BANK 16.STATE BANK OF INDIA 17.STATE BANK OF TRAVANCORE 18.STATE BANK OF MYSORE 19.STATE BANK OF BIKANER &amp; JAIPUR 20.STATE BANK OF HYDERABAD 21.STATE BANK OF PATIALA 22.STATE BANK OF MAHARASTRA 23.STATE BANK OF SOURASTRA(SBI-13.09.08) 24.SYNDICATE BANK 25.UCO BANK 26.UNION BANK OF INDIA 27.UNITED BANK OF INDIA 28.VIJAYA BANK</p> <p><u>If PBG is issued by a Foreign counter part of the BHEL consortium Indian Bank, in case of claim against the PBG , it will be lodged in any one of the Indian counters of the Foreign Bank which issued the PBG.</u></p>	
8.	<p><b>Liquidated damages (LD):</b> The delivery of the goods specified in the purchase order should be made within the time prescribed. LD for delay in ‘Supply’ will be applicable to the delays attributed to vendor. Where the seller supplies or dispatches the goods, beyond the delivery period Liquidated damages shall be applicable 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.</p> <p><b>Material Despatched after Due date:</b> Once the delivery due date is crossed, bills have to be clubbed till final despatch and forwarded for processing of payment as a single bunch. LD percentage will be calculated from Delivery due date to final despatch date.</p> <p>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.</p> <p>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). For the purpose of Imposing LD, the FOB delivery (B/L date) shall be considered</p>	
9.	<p><b>Risk Purchase:</b> Alternatively the purchaser at his 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 from the best and the nearest available substitute. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.</p>	
10.	<p><b>Delivery terms and evaluation process:</b> Indian Bidders should submit their offer on <b>FOR BHEL, Tiruchy</b> basis. Packing &amp; Forwarding and Freight &amp; Insurance charges from works to BHEL, Tiruchy to be indicated separately if extra from basic rate. Applicable % of ED &amp; Sales Tax Commissioning Charges should be clearly indicated.</p> <p style="background-color: yellow;"><b>Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL)</b></p>	
11.	<p><b>Guarantee:</b> Vendors shall provide a guarantee for a period of 12 months from the date of commissioning of the equipment or 18 months from date of supply, whichever is earlier. The date of B/L or AWB shall be taken as the date of supply.Also, a PBG has to be given which shall cover the guarantee period (with additional 2 months as claim period). Normally No deviation permitted and the deviated offers are liable for rejection.</p>	
12.	<p><b>Short shipment / Warranty replacement:</b> In case of any short shipment in the main equipment / spares, Customs Duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warrantee period shall be on FOR, BHEL, Tiruchirappalli, basis.</p>	

13.	<p><b>Inspection &amp; Testing:</b> All goods shall be subject to inspection by BHEL or its authorized representatives at supplier's works or at BHEL stores or at any other place in India indicated by BHEL as the case may be. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools, the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHEL, Tiruchirappalli.</p>	
14.	<p><b>Test certificates / Operating and Maintenance manuals:</b> The Bidders shall clearly mention in their offer, that Test Certificates and Operating Maintenance Manuals, etc., as called for in the Technical Specification, in the required number of copies will be provided at no extra cost.</p>	
15.	<p>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. Offers of indigenous Suppliers with payment terms as LC/Advance Payment are liable for rejection.</p>	
16.	<p><b>BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.</b></p>	
17.	<p><b>Reverse Auction (RA):</b> BHEL reserves the right to conduct on-line internet Reverse Auction ie. ONLINE BIDDING (THROUGH A SERVICE PROVIDER) for finalizing the Tender. This decision will be communicated to the technically qualified vendors after technical evaluation. Details / General terms / guidelines for conduct of RA are shown below Vendors are requested to confirm their acceptance for BHEL proceeding with RA route for finalization of the enquiry.</p> <ol style="list-style-type: none"> <li>1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.</li> <li>2. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.</li> <li>3. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact &amp; get trained.</li> <li>4. Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.</li> <li>5. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.</li> <li>6. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing &amp; forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms &amp; conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction</li> <li>7. Reverse auction will be conducted on scheduled date &amp; time.</li> <li>8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.</li> <li>9. The lowest bidder has to Fax/e-mail the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.</li> <li>10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.</li> <li>11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price Bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.</li> <li>12. BHEL reserves the right to negotiate if need be, with the "L1" vendor of the Reverse Auction</li> <li>13. <u>BHEL reserves the right not to consider offers from vendors not complying with the RA process for finalization of the enquiry.</u></li> <li>14. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.</li> </ol> <p>In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.</p>	
18.	<p><b><u>Special Provisions for Micro and Small Enterprises (MSE)</u></b> MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II (Entrepreneur Memorandum Part 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 as per Annexure - III) applicable for the relevant financial year (latest audited), certifying quantum of investment in plant and machinery within the permissible limit 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. Offer/s received without these documents will lead to consideration of their offer at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier.</p>	
19.	<p><b>ARBITRATION</b> All disputes or differences whatsoever which may arise at any time during execution of the Contract shall be mutually settled by BHEL and Contractor as per provision of the Contract. However, in the event such disputes cannot be settled mutually, such disputes shall be settled as per the Arbitration and reconciliation Act, 1996 of the Govt. of India and it's subsequent amendments. In case of disputes with the Central PSUs, the same shall be settled at Tiruchirappalli as per the Guidelines of the Govt. of India. However, during the period such disputes are settled either by mutual discussions between the parties or by legal means, Contractor shall continue to do the work as per terms &amp; conditions of Contract.</p>	

<b>20.</b>	<ul style="list-style-type: none"> <li>➤ Point to point confirmation for the Technical Specification enclosed to be provided. If there are any deviations, the same should be clearly specified. Offers received without confirmation to our specifications will be liable for rejection. If needed additional sheets shall be used.</li> <li>➤ Equipment offered shall be "New". Re-built / Re-conditioned / Used equipment's will not be accepted. Incomplete offers will not be considered for further processing Fixed price:</li> <li>➤ BHEL reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.</li> <li>➤ BHEL shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL.</li> <li>➤ The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost</li> <li>➤ The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.</li> </ul>	
<b>21.</b>	<b>Company Details &amp; Contact</b>	
	Full Address of the company for future correspondence / placing order. (Copy of address proof & PAN card shall be attached along with Part-I)	
	Company Email ID:	Phone No.:
	Fax No	PAN No
	CST /TIN No	Service Tax No.
	Name of the contact person:	Mobile No.:
	e-mail ID	
<b>22.</b>	<b>TO BE CONFIRMED BY VENDOR</b>	
	Country of origin:	
	Station of dispatch/Port of Shipment	
	Delivery Terms (For destination or Ex-works )	
<b>23.</b>	<b>Packing &amp; Forwarding</b> Charges, if any ( in % or Lumpsum) ie. extra from basic rate	
	% of Excise Duty with cess	
	% of TAX (CST/VAT) (TNGST with FORM-17 or CST with C-FORM)	
	<b>Freight &amp; Transit Insurance</b> charges (if any, in Lumpsum (or) percentage) from Dispatching station to BHEL Tiruchirappalli, (Note:If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only, in this case the Freight & Insurance will be borne by BHEL)	
<b>24.</b>	Delivery from the date of Letter of Intent / Purchase Order. <b>(This should be inclusive of Order acceptance, drawing approval and time period required for receiving goods at BHEL Trichy etc.,</b>	
<b>25.</b>	<b>Weight &amp; Cubage of package:</b> Approximate Net weight of the total consignment: Approximate Gross weight of the total consignment: Approximate volume of the total consignment:	
<b>For any queries / clarifications the bidders may contact us through e-mail &lt;pgavictor@bheltry.co.in&gt;</b>		

**NOTE**

- a) Your specific acceptance to our Payment terms, LD, Risk Purchase Clause & Submission of PBG for 10% of the order value are essential for consideration of your offer. Otherwise your offer is liable for rejection.
- b) **No row shall be left blank. Please indicate NA, in case the item is "not applicable"**

**Declaration:-**

I/We have gone through and understood the 'General guidelines & instructions to bidders for submitting offer' enclosed as a part of the Tender and confirm that our offer has been made in line with the same.

Name:

Signature with date:

(AFFIX OFFICIAL SEAL HERE)

Designation:

(PLEASE AFFIX YOUR SIGNATURE WITH SEAL ON EACH PAGE)

**MODEL PRICE BID FORMAT FOR INDIAN BIDDERS**

Enquiry No. &amp; Date:

Bidder's Offer No. &amp; Date:

Sl No	Description of item	Unit (SET /No)	QTY	Rate /Qty in Rs. (excluding of all taxes)	VAT/CST in % (TNGST with FORM-17 or CST with C-FORM)	ED in %	Total Value in Rs. (inclusive of all taxes)
	<b>Supply portion As per tender specifications</b>						
	Packing & Forwarding charges (if any) in percentage (or) Lumpsum						
	FOR Dispatching station value in Rs.						
	Percentage of Freight & transit insurance charges, if any (Lumpsum or %) Freight & Insurance charges from Dispatching station to BHEL, Tiruchirappalli (Note:If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only, in this case the freight & Insurane will be borne by BHEL)						
	Approximate Net weight of the total consignment						
	Approximate Gross weight of the total consignment						
	Approximate Dimensions of the Consignment						

Signature &amp; Seal of Vendor

**The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, in case the item is "not applicable"**

**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 on  
date..... 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

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

Date:

(Signature)

Name -

Membership number -

Seal of Chartered Accountant