



An ISO 9001  
Company

## Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

<b>TITLE :</b> Retrofitting of New PLC in CH6-Tube Bending Machine.	Phone: +91 431 2577645/2577331 Fax : +91 431 252 07 19 Email : <a href="mailto:balasund@bheltry.co.in">balasund@bheltry.co.in</a> <a href="mailto:srchandran@bheltry.co.in">srchandran@bheltry.co.in</a> Web : <a href="http://www.bhel.com">www.bhel.com</a> , <a href="http://tenders.gov.in">http://tenders.gov.in</a>
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	<b>Reference Number:</b> <b>Enquiry 2680900016</b>	<b>Enquiry Date:</b> <b>27.03.09</b>	<b>Due date for submission of quotation: 20.04.09.</b>
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 Retrofitting of New PLC in CH6-Tube Bending Machine, as per the technical specification . The vendors fulfilling the pre-Qualification Criteria alone need to apply and shall be considered.

***Pre-Qualifying criteria for participating vendors are given below:***

1. Only those vendors who have supplied and commissioned similar or higher capacity/size equipment that is working satisfactorily for atleast one year after commissioning should quote.
- 2.Information about the customers to whom similar equipment's have been supplied is to be submitted for qualification of the offer.
- 3.Before placing the order, BHEL team will visit the supplier works and also evaluate the places where the vendor has supplied similar equipment's.

BHEL commercial terms & conditions with Price Bid format and Bank Gurantee formats can be downloaded from BHEL web site <a href="http://www.bhelcom">http://www.bhelcom</a> or from the Government tender website <a href="http://tenders.gov.in">http://tenders.gov.in</a> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference "2680900016"	
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, <b>For Bharath Heavy Electricals Limited</b>  Manager / Capital Purchase/ Manufacturing



**ENQUIRY**  
(INDIGENOUS)

## BHARAT HEAVY ELECTRICALS LIMITED

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

Page  
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PHONE : 2577645  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: balasund@bheltry.co.in  
Web:www.bhel.com(or) tenders.gov.in

429-002/A

Enquiry No	Enquiry Date	Due Date for Quotation
2680900016 - 79	27.03.2009	20.04.2009
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order		

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	Name of work:RETROFITTING OF NEW HYDRAULIC SYSTEM IN TUBE BENDING MACHINE CH 6/127 Scope of work:ANNEXURE-A RETROFITTING WITH NEW POWER PACK IN CH/6	NO	1.000	1.00	30.05.09

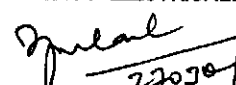
### General Note:

- 1.,,PLEASE SUBMIT YOUR DETAILED OFFER IN THREE PART BID SYSTEM ie. PART-1, EMD AMOUNT RUPEES 40,000/- IN ONE SEPARATE SEALED COVER. PART-II, TECHNICAL AND COMMERCIAL (UNPRICED BID) IN ANOTHER SEALED COVER. PART-III,PRICED OFFER IN ANOTHER SEPARATE SEALED COVER. NON SUBMISSION OF EMD AMOUNT WILL LEAD TO REJECTION OF SUBMITTED OFFER.
2. POINT-TO-POINT CONFIRMATION TO BHEL'S SPECIFICATIONS, COMMERCIAL TERMS & CONDITIONS SHOULD BE PROVIDED IN "ANNEXURE-II, WITHOUT FILLING OF ANNEXURE-III & ANNEXURE-V", THE OFFER WILL NOT BE CONSIDRED. THE ABOVE TWO ANNEXURES AND ANNEXURE-IV (without price) SHOULD BE FILLED AND SUBMITTED ALONG WITH PART-II ie. TECHNO-COMMERCIAL BID
- 3.,,PAYMENT TERMS STRICLY FOLLOW AS PER OUR PAYMENT TERMS INDICATED IN THE COMMERCIAL TERMS AND CONDITIONS.OTHER PAYMENT TERMS ARE NOT ACCEPTABLE.
4. OFFERS a) DEMANDING ADVANCE PAYMENT, b) DEMANDING EXEMPTION OF EMD AMOUNT (Rs 40,000/-) d) WITH OFFER VALIDITY OF LESS THAN 4 MONTHS WILL BE REJECTED.
- 5.,,ANY CLARIFICATIONS OR PRE-BID MEETING MAY BE SOUGHT BY BIDDER FROM THE UNDERSIGNED WITH DUE WRITTEN REQUESTS AT LEAST TEN (10) DAYS PRIOR TO TENDER DUE DATE.
- 6.,,IF THE DUE DATE OF TENDER OPENING HAPPENS TO BE A HOLIDAY, THOSE TENDERS WILL BE OPENED ON NEXT WORKING DAYS.

### GENERAL NOTE FOR THE ENQ ON REVERSE AUCTION

The offers should reach us before the time of opening of tenders.  
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.  
Late tenders are liable to be rejected.

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

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
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PHONE : 2577645  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: balasund@bheltry.co.in  
Web:www.bhel.com(or) tenders.gov.in

2680900016 / 27.03.2009

SUBMIT THE QUOTATION IN THREE PARTS ie. FIRST PART EMD AMOUNT, SECOND PART TECHNO COMMERCIAL BID EXCLUDING PRICES, TAXES ETC AS PER THE ENCLOSED FORMAT AND THE THIRD PART PRICE BID TOGETHER ,BUT IN SEPARATE SEALED COVERS , ON OR BEFORE THE DUE DATE.

1. THE THIRD PART (PRICE BID ) SHALL HAVE PRICE ONLY.
2. THE ENQUIRY NUMBER AND THE TYPE OF BID ie. PRICE BID OR TECHNO COMMERCIAL BID AS APPLICABLE SHALL BE INDICATED CLEARLY IN THE POSTAL COVER.
3. GENERAL TERMS AND CONDITIONS GOVERNING RA ARE GIVEN IN ANNEXURE-I.
4. REVERSE AUCTION IS DONE THROUGH INTERNET/EMAIL . HENCE VENDORS SHALL MAKE THEMSELVES EQUIPPED WITH EMAIL , FAX AND INTERNET FACILITIES.
5. IN CASE OF GOING FOR REVERSE AUCTION VENDORS WILL BE SUITABLY INFORMED ABOUT THE WORKING PROCEDURES OF REVERSE AUCTION AND BHEL WILL PROVIDE ALL THE RELEVANT DETAILS TO ENABLE THE VENDOR TO PARTICIPATE.
6. TEST CERTIFICATE AND GUARANTEE CERTIFICATE IS REQUIRED ALONG WITH SUPPLY.

#### List of Attachments

1. Annexure-A Scope of supply and works-6 Pages
2. Annexure-I General terms and conditions of RA-1 Page
3. Annexure-II Commercial terms and conditions-3 Pages
4. Annexure-III Commercial Confirmations-1 Page
5. Annexure-IV Model price bid format-1 Page
6. Annexure-V Check list for conducting RA-1 Page
7. Annexure-VI EMD/SD Details
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9. DWG.No.0M12A0200048.tif

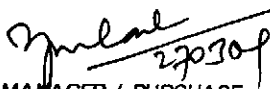
#### Enclosures:

"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode"

The offers should reach us before the time of opening of tenders.  
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.  
Late tenders are liable to be rejected.

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

  
MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully.

S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
	Name of work:	RETROFITTING OF NEW HYDRAULIC SYSTEM IN TUBE BENDING MACHINE CH 6/127		
	The retrofitter has to do the following works and establish smooth operation of the machine.			
I	Scope of work:			
		1. The existing hydraulic power pack has to be removed and replaced with new Electro-hydraulic power pack designed & supplied by them.		
		2. The existing functional hydraulic scheme of the pipe bending machine is as per as per Drg:OM 12A 0200048.		
		3. An Electrically activated hydraulic power pack functionally equivalent to the existing hydraulic power pack to be designed, as per the functional hydraulic circuit OM 12A 0200048 and the same has to be supplied , installed and proved on the Bending machine by the supplier		
		4. The new electro-hydraulic power pack drawing has to be submitted to BHEL for approval.		
		5. The new Hydraulic power pack shall have the following specification. (i) All The Hydraulic valves shall be Assembled on the Hydraulic tank itself with maintenance convenience. (ii) A fully wired electrical control panel for operating the Solenoid control valves at 24 V DC. (iii) The electrically operated valves shall be designed to operate at a control voltage of 24 V DC. (iv) The power pack shall be supplied with all the hydraulic valves assembled over the tank and the control panel to be separate with inter connecting copper cables.		

S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
		<p>(v) The temperature of the hydraulic oil shall not exceed 50 deg.C and hence accordingly an integral air cooled heat exchanger arrangement to be included with the power pack.</p> <p>(vi) The electrical input voltage for the power pack control panel to be 415 V +/- 10v, 50 Hz. Three phase three wire system.</p> <p>No neutral wire.</p> <p>(vii) Check points to be provided at suitable locations to read the Hyd. pressure in independent circuits during various operations.</p> <p>(viii) The Hydraulic system should be provided with suitable pressure gauges to read the oil pressure.</p> <p>(ix) The circuit shall be designed to have pump flow unloading facility at low pressure during no load operation of the machine.</p> <p>X. All hydraulic hoses shall be from Gates, markwell, Insap flexibles, parker only.</p>		
		6. All the hydraulic components shall be from Rexroth or Vickers or Yuken or Hawe or Dennison and wherever the components of specified make is not available the same may be indicated in the drawing.		
		<p>7. All the Hydraulic metallic tubes, fittings and hydraulic hoses required to connect the power pack with the machine for various functional requirements are to be supplied and installed by the supplier.</p> <p>8. The power pack has to be painted and supplied in apple green colour.</p>		
		9. The power pack has to be offered for inspection at the supplier works before delivery.		

S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
II	Existing Electrical system	<p>Existing electrical control is built with relay logic for achieving the pipe bending process. The bending angles are achieved through a drum controller type limit adjusting angle control system through electrical.</p> <p>All the contactors are with #no volt coil# voltage of 220V AC supply and the hydraulic power pack motor is 3 phase, 415 Volts, 50 Hz AC supply. The solenoids used for controlling the directional control (hydraulic) valves are of 24 Volts DC supply. A pedestal type (with moving castor wheels) operator control desk having push button switches, selector switches and indication lamps are used for the pipe bending operations.</p> <p>The motor used for hydraulic power pack is 9 kW, 1460 RPM, 3 phase 415 Volts 50 Hz AC supply.</p> <p>There are approximately 18 push button switches, 19 limit switches, 3 selector switches, 29 control relays / contactors, 18 solenoids, 12 indication lamps available on the machine.</p>		
	Electrical work	10. The Vendor has to supply a fully wired electrical panel as per the existing electrical drawing no: 0M 12A 0200033 of the existing relay logic electric circuits available for the bending operation. Necessary measures to be taken to include interlocks for trouble free and safety operation of the bending process.		

S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
		<p>11. The vendor has to supply of fully wired electrical control cubicle having the following components.(for accommodating the MCBs, motor protection circuit breakers, electrical contactors, overload relays, lubrication timers, power supply unit required for Hyd. valve solenoids, control transformers,suitable rating of MCCB as main switch, indication lamps for power on and motor tripped indications, terminal connectors for mains input, input/ output to the field elements like limit switches, control elements on operator control desk etc., direction controlled solenoid valves, including supply of all electrical components required inside the cubicle),(b). operator control desk including supply of all electrical components as per the modified electrical schematic diagram and replacing the field elements of all the limit switches in the machine.</p>		
III	Note:	<p>i. Dust proof, "RITTAL make" cubicle with adequate cooling arrangements with one coat of red oxide and 2 coat of siemens gray enamel paint on exterior and 2 coat of white enamel paint on interior with panel illumination CFL lamps, 3pin, 230volt, 5/15amps flush type switched wall socket and movable operator control desk with castor wheel arrangement.</p> <p>ii. An electrical schematic diagram should be designed as per the existing drawing no: OM 12A 0200033.</p> <p>iii. Electrical components location drawing including wiring routes for all the field elements, electrical control cubicle and the operator control desk should be suitable to new hydraulic power pack and field elements.</p> <p>iv. All the wiring cables / signal cables should be of IGUS or LAPP make with use of standard colour for different voltages.</p>		

S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
		<p>v. All the cables to the field elements and operator control desk should be protected by flexible metal conduits with PVC sheathed (Anagonda hose) and both the ends are provided with suitable metal glands. Suitable size of metal duct should be provided for routing the hoses if more than one.</p> <p>vi. Separate DC power supplies with suitable rating of MCB protection are required for Hydraulic direction controlled solenoid valves. The make should be like Siemens, Allen Bradley, Messung and ABB onl</p> <p>vii. Replacing all the field elements like limit switches, pressure switches on the m/c and micro limit switches and it's operating mechanism for existing drum controlled type angle selector.</p>		
IV	Documets required	Supply of printed copies of 3 sets of electrical drawings with spare parts list including brought out items.		
V	Vendor's visit	Before quoting, the supplier must visit our works and study the existing machine m/c sequence of operation logics, accuracy of the various types of bends, like, bending angle, length, ovality, wall thinning, repeatability of bending angle and speed of all the m/c movements as, rotation of the plate, principle clamping, pressure die, booster slide bar, mandrel etc and productivity (number of bends done per shift of eight hours).		
VI	Perormance proove out	After retrofitting, the supplier should prove out the Performance, accuracy and productivity should be better than that of before retrofitting, in various types of bends, quality, speed of operation.		



S.NO	DESCRIPTION	BHEL SPECIFICATION	BIDDER OFFER	DEVIATION / REMARK
VII	Guarantee	<p>Note</p> <p>a. The electrical control cubical should not less than the existing dimension of 1350 X 950 X 450 mm (height X width X Depth).</p> <p>b. The control elements like contactor, limit switches, push buttons, MCCB, MCB, MPCB for Hydraulic motor should be M/s. Siemens, L&amp;T, BCH only.</p> <p>c. All the control elements and connectors for field elements should be mounted on the DIN rail.</p> <p>d. Before manufacturing the panel the vendor should get the approval for the electrical wiring with bill of material, component layout and size of the cubical from BHEL.</p> <p>e. The vendor should disconnect the existing electrical wiring connections in the control cubical, operator panel, field elements and remove the wires, hoses from m/c Before erection and commissioning of new panel.</p> <p>f. The GUARANTEE should be 12 Months from the date of commissioning. If there is any mal function of the m/c, component failure and break down the vendor should attend and solve it.</p> <p>The GUARANTEE should be 12 Months obtained from the vendor, from the date of commissioning. If there is any mal function of the m/c, component failure and break down .</p>		

**GENERAL TERMS AND CONDITIONS OF RA**

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
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.
3. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
4. Business rules like event date, time, Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
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.
6. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
7. Reverse auction will be conducted on scheduled date & time.
8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to Fax 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.
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.
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.

**CAPITAL PURCHASE****COMMERCIAL TERMS AND CONDITIONS****1.0 QUOTATIONS**

The Bidders shall submit the offer in **THREE INNER ENVELOPES** as indicated below which shall be sealed in one outer envelope.

**Envelope I :** This sealed envelope should contain the required EMD amount of **Rs 40,000/-**

**Envelope II :** This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked **"Part II - Technical and commercial bid"**, indicating Enquiry No., Due Date and Address & Reference of the Bidder.

**Envelope III :** This sealed envelope should contain **price details**. This envelope should be clearly marked **"Part III - Price bid"**, indicating Enquiry No., Due Date and Address & Reference of the Bidder.

All the three envelopes ( Part I,II & III) shall be put in one cover, duly sealed, super scribing as Part I ,Part II and Part III of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by 14.00 Hrs (IST). Late offers will not be considered.

Tender should not be addressed to any Individual's name but only by designation to:

**MANAGER / CAPITAL PURCHASE / MFG  
BHARAT HEAVY ELECTRICALS LIMITED  
HIGH PRESSURE BOILER PLANT  
TIRUCHIRAPALLI - 620 014  
TAMIL NADU, INDIA**

Tenders should be free from **CORRECTION AND ERASURES**, Corrections if any, must be attested. All amount shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in **ENGLISH** and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in **ENGLISH** or otherwise, the offers will not be considered.

**2.0 PART I (TECHNICAL & COMMERCIAL BID)****2.1 Technical**

This part shall include / indicate the following :

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed to be provided. if there are any deviation, the same should be clearly specified. Offers received without confirmation to our specification will be liable for rejection.
- 2.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.
- 2.1.4. Relevant catalogues to be attached
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.
- 2.1.6. Information on shipping weight and cubage (length, width & height) to be provided.
- 2.1.7. Incase of foreign bidder offer, the Principal's technical offer should be enclosed.

**2.2 Commercial**

This part shall include / indicate the following :

- 2.2.1. Station of dispatch/Port Of Shipment
- 2.2.2. Terms of payment
- 2.2.3. Taxes & duties applicable.
- 2.2.4. Delivery Schedule
- 2.2.5. Offer validity
- 2.2.6. Country of origin
- 2.2.7. Percentage of agency commission if any along with a copy of Agency agreement.
- 2.2.8. A copy of "Un-Priced Part III" i.e., a copy of the Price Bid **without the price details** to be enclosed.

**3.0 PART III (PRICE- BID)**

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part II.

**4.0 OPENING OF TENDERS**

The part I – EMD would be opened on the tender opening date and if EMD is not furnished the offer will be duly rejected.

The Part II- Technical & commercial bid would be opened on the Tender opening date.

The Part III - Price bid of Technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the tender opening date.

Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part III - price bid.

**5.0 GENERAL**

5.1. Incomplete offers will not be considered.

5.2. **Fixed price:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order. A bid submitted with an adjustable price will be treated as non - responsive and rejected. Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regard to total price.

5.3. **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency.

5.4. **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net **FOB Nearest Sea / Air Port**. Indian Bidders should submit their offer for **FOR Despatching station**.

5.5. **Taxes and Duties :** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TNGST No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our T.N.G.S.T No. 356005 Dt. 04-04-1995, C.S.T. No. 239383 dt. 11-06-1991 and TIN NO.33243560005..

5.6. **Validity :** The offers for main equipment and spares shall be kept open for acceptance for **120 days (one hundred and twenty days)** from the date of opening of the tender (Part I).

5.7. **Terms of Payment :**

5.7.1. **Indian Bidders**

5.7.1.1. The preferred payment terms are indicated below :

**SUPPLY PORTION:**

100% payment, within 45 to 90 days, after receipt / acceptance / commissioning of equipment at BHEL, Tiruchi.

or

5.7.1.3 80% value of the goods will be paid within 45 to 90 days against dispatch documents negotiated through bank. Balance 20% against submission of supplementary invoice will be paid on acceptance / commissioning of goods and also against remittance of required Security Deposit to BHEL in accordance with the terms of the Contract.

**All bank charges are to vendor's account only.**

5.7.2. **Foreign Bidders**

An Irrevocable Letter of Credit shall be established for 80% of the value of the goods. Balance 20% shall be paid on receipt / acceptance / commissioning of the goods at BHEL against 10% Performance Bank Guarantee on total order value. All bank charges outside India are to Vendor's account. Letter of Credit shall be opened through a branch of State Bank of India in the country where order shall be placed. In case, in the country where order is placed, State Bank of India is not there, Letter of Credit will be opened through our bankers or as permitted by Government of India. All bank charges outside India are to supplier's account. Lump sum erection and commissioning charges, if any, shall be payable after satisfactory erection and commissioning of the equipment by sight draft against certificate issued by the competent authority.

**ERECTION & COMMISSIONING PORTION:**

100% of the Erection / commissioning charges (in case contract involves erection/commissioning) shall be paid only on completion of such erection / commissioning at BHEL and also against remittance of required Security Deposit to BHEL in accordance with the terms of the Contract

5.7.3 **Common to both Indian & Foreign Bidders**

E&C charges will be released after deduction of Income Tax as per the Govt. of India rules. The TDS certificate will be issued by BHEL. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier.

- 5.8. Performance Bank Guarantee (PBG):** 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 proforma prescribed by BHEL, alongwith the order, for an amount equivalent to **10% (Ten percent)** of the value of the contract. The PBG shall be valid for period of 18 months from the date of despatch or **12 months** from the date of receipt / acceptance / commissioning of the equipment at BHEL, Tiruchi which ever is more, with a claim period of two months.  
The Performance Bank Guarantee shall be obtained from any one of the following banks who is a member bank in our consortium of banks.  
State Bank of India, 2) State Bank of Hyderabad, 3) State Bank of Travancore, 4) State Bank of Mysore, 5) Canara Bank, 6) Bank of Baroda, 7) Punjab National Bank, 8) Deutsche Bank, 9) HDFC Bank, 10) Standard Chartered Bank, 11) Citi Bank, 12) Standard Chartered Grindlays Bank, & 13) Bank of America or any other Nationalised Bank.
- 5.9 Liquidated damages :** It is clearly understood among the parties to the contract the **"Time is the essence of the contract"**. Therefore, the delivery of the goods specified in the purchase order should be made within the time prescribed. Where the seller supplies or despatches the goods, beyond the delivery period specified the purchaser will have no obligation to accept the goods. If accepted liquidated damages at the rate of 1/2% of the value of goods delayed for each week of delay subject to a maximum of 15% of the order value will be levied. Liquidated damages @ 1/2% per week subject to a maximum of 15% of the Erection Charges shall be applicable for delay in the Period for completion of the Retrofitting / Reconditioning work
- 5.10 Risk purchase :** 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 despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.
- 5.11 Agency commission :** In case of Foreign Bidders, agency commission if any, payable to their Indian Agents, shall shown separately in the Offer. This will be paid by us in India, in Indian Rupees, on satisfactory completion of the Contract. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished alongwith offer. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of offer will be taken.
- 5.12 Inspection & Testing:** 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.
- 5.13 Test certificates / Operating and Maintenance manuals :** 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.
- 5.14 Cenvat credit (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 CENVAT credit for his input materials, the effect of proforma credit should be passed on to the purchaser..
- 5.15 Packing and marking :** The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
- 5.16 Purchase preference** will be given to CPSUs as per Government guidelines.
- 5.17 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.
- 5.18 Earnest Money Deposit** shall be payable as per the instructions furnished in the Annexure-V. Otherwise the offer will be rejected.
- 5.19 Security Deposit** shall be payable as per the instructions furnished in the Annexure.
- 5.20 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 governing RA are given below.

For any queries / clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail [balasund@bheltry.co.in](mailto:balasund@bheltry.co.in) and [srchandran@bheltry.co.in](mailto:srchandran@bheltry.co.in)

**Bharat Heavy Electricals Limited, Trichirapalli – 620 014****MM : CAPITAL PURCHASE****(To be filled and submitted along with offer )**

<b>BHEL Commercial Terms and Conditions for Indigenous Supplies</b>	<b>Vendor's Confirmation / Comments</b>
EMD for Rs 40,000/- shall be payable as per the instructions furnished in the annexure. Otherwise the offer will not be considered. <b>Pay order / DD No / Cash receipt no &amp; date may be furnished</b>	
Security Deposit shall be payable by the successful vendors as per the instructions furnished in the <b>Annexure-VI</b>	
Security Deposit will be refunded within 30 days after successful completion of Contract by the successful vendor.	
Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.	
<b>Prices shall be quoted item wise only as per the model format enclosed. An unpriced copy shall be submitted along with technical bid where in the applicable Taxes and Duties Shall be clearly specified</b>	
Prices shall be quoted on <b>"FIRM PRICE"</b> basis only. The prices should be only on <b>F.O.R / Despatching</b> station basis inclusive of <b>Packing &amp; Forwarding</b> charges if any. <b>Applicable % of ED &amp; Sales Tax , Freight &amp; Insurance, Installation &amp; Commissioning Charges should be clearly indicated.</b>	
<b>Validity of offer shall be for a minimum period of 120 days from the date of Tender opening</b>	
<b>Delivery period</b> (for supply portion) from the date of Letter of Intent / Purchase order shall be clearly mentioned in the offer.	
<b>Period for completion of the Retrofitting / Reconditioning</b> work at BHEL shall be clearly specified in the offer	
<b>Liquidated damages @ ½% per week</b> subject to a maximum of 15% of the order value shall be applicable for delay in deliveries.	
<b>Liquidated damages @ ½% per week</b> subject to a maximum of 15% of the Erection Charges shall be applicable for delay in the period of completion of the Retrofitting / Reconditioning works.	
<b>Following Risk Purchase clause shall be applicable:</b> 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 or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.	
<b>Submission of Performance Bank Guarantee (PBG):</b> Vendor should provide a performance bank guarantee(PBG) for 10% of the total Purchase order value valid for a period of 12 months from the date of commissioning (or) 18 months from the date of dispatch whichever is later with an additional claim period of 2 months. This PBG shall form one of the documents for effecting payment. The PBG shall be submitted in non-judicial stamp paper value of not less than Rs.80/- issued by any one of the following banks who is a member bank in our consortium of banks. <b>1) State Bank of India, 2) State Bank of Hyderabad, 3) State Bank of Travancore, 4) State Bank of Mysore, 5) Canara bank, 6) Bank of Baroda, 7) Punjab National bank, 8) Deutsche Bank, 9) HDFC Bank, 10) Standard Chartered Bank, 11) Citi Bank, 12) Standard Chartered Grindlays Bank 13) Bank of America and 14) Any one of the Nationalised banks.</b>	
<b>Payment terms for supply portion:</b> *100% payment will be made within 45 to 90 days after receipt and acceptance / commissioning of goods at BHEL. against submission of PBG for 10% of Order value with required validity. (or ) * 80% value of the goods will be paid within 45 to 90 days against dispatch documents negotiated through bank. Balance 20% will be paid within 45 to 90 days from the date of acceptance / commissioning of goods against submission of supplementary invoice and also against submission of PBG for 10% of Order value with required validity. <b>All bank charges are to vendor's account only.</b>	
<b>Erection / commissioning Charges:</b> Erection / commissioning shall be done at free of cost. If any charges, 100% of the Erection / commissioning charges (in case contract involves erection/commissioning) shall be paid only on completion of such erection / commissioning at BHEL and also against remittance of required Security Deposit to BHEL in accordance with the terms of the Contract	
The equipment shall be guaranteed for a period of 12 months from the date of commissioning.	
Equipment will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL, Trichy.	
All Equipments / Services including concern Personal for carrying out the erection and commissioning of the Equipment shall be arranged by the vendor. If any Services is availed from BHEL, it is only on chargeable basis unless otherwise specified.	
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.	
Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.	
<b>Offers should be submitted only in sealed cover super-scribing clearly the Enquiry reference and due date.</b>	

**NOTE:-**

- It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- Your offer should be indicating applicable if any P&F Charges, % of ED, Sales Tax -CST or VAT, Service Tax), Freight, Insurance and Installation and Commissioning Charges etc., as per our Price Format.
- 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. Other wise your offer is liable for rejection.

Signature &amp; Office Seal of the vendor

**MODEL PRICE BID FORMAT FOR INDIAN BIDDERS**

Enquiry No. &amp; Date:

Bidder's Offer No. &amp; Date:

Sl No.	Description of item	Unit	Quantity	Rate in Rs.	Value in Rs.
	The price indicated shall be inclusive of all accessories, spares etc. as given in the scope of supply. Individual item-wise break-up price shall be attached as an annexure to this price bid format.				
	Ex-Works value in Rs.				
	Packing & Forwarding charges (if any) in Rs.(or) Percentage				
	FOR Dispatching station value in Rs.				
	Excise Duty (indicate the % as well as value)				
	% Of TAX (TNGST with FORM-17 or CST with C-FORM)				
	% Of TAX (TNGST without FORM-17 or CST with C-FORM)				
	Any other taxes/duties applicable (indicate the % as well as value)				
	Percentage of Freight& transit insurance charges, if any (Lumpsum) Freight 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 will be borne by BHEL)				
	Erection & Commissioning Charges in Rs				
	% of Service Tax if applicable extra				
	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"

**CHECK LIST FOR CONDUCTING RA**

BHEL ENQUIRY NO &amp; DATE

VENDOR OFFER REF NO &amp; DTAE

SL NO.	Commercial Terms	In % or Text	Remarks
01	Delivery Terms (Exw Basis or For Destination Basis)		
02	% of Excise Duty		
03	% of Education Cess		
04	% of TAX (CST/VAT) (TNGST with FORM-17 or CST with C-FORM)		
05	% Of TAX (CST/VAT) (TNGST without FORM-17 or CST without C-FORM)		
06	% of Service Tax if applicable		
07	Packing & Forwarding Charges (either in % or lumpsum)		
08	% of Freight & Transit Insurance charges if any (Lumpsum) (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 charge will be borne by BHEL)		
09	Price Validity		
10	Payment Terms		As per Annexure-II
11	LD Acceptance		As per Annexure-II
12	Risk Purchase Clause		As per Annexure-II
13	PBG Acceptance , if applicable		As per Annexure-II
14	Delivery from the date of receipt of PO		
15	Quantity Tolerance, if applicable		
16	Approximate Gross Weight, Net. Weight & Dimensions of the Consignment		
17	As per Clause 5.20 of Commercial terms and conditions acceptance for participation in Reverse auction (RA).		Yes/No to be indicated
18	Name of the person for participating reverse auction.		
	Land Line Number		
	Fax Number		
	Mobile Number		
	E-mail ID		

Signature &amp; Seal of Vendor



### **EARNEST MONEY DEPOSIT**

Earnest Money is to be paid by the Tenderer either in **Cash** (as permissible under Income Tax Act), **Pay Order** (or) **Demand Draft** drawn in favour of Bharat Heavy Electricals Ltd, Trichirapalli payable at Trichirapalli.

EMD by the Tenderer will be forfeited as per Tender Documents if

- 1) After opening the Tender, the Tenderer revokes his Tender within the validity period or increases his earlier quoted rates
- 2) The Tenderer does not commence the work within the period as per LOI/Contract. In case the LOI/Contract is silent in this regard then within 15 days after award of the Contract.

EMD given by all unsuccessful Tenderers shall be refunded normally within 15 days of acceptance of award of work by the successful Tenderer.

EMD shall not carry any interest.

### **SECURITY DEPOSIT**

The successful Tenderer should pay Security Deposit before start of the work and the Rate of Security Deposit will be as below.

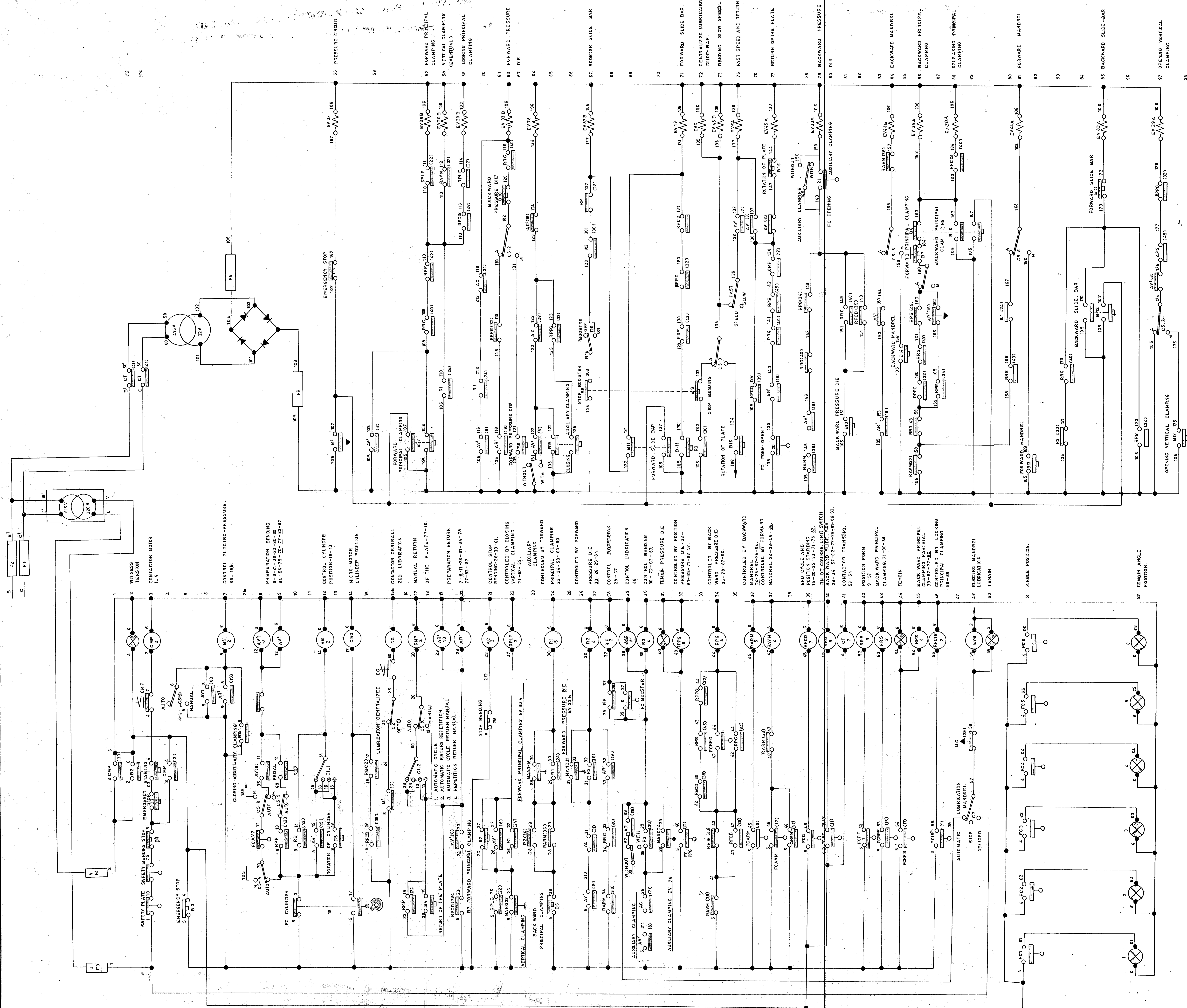
<b>Value of Contract including all Taxes and duties</b>	<b>Rate of Security Deposit</b>
Upto Rs.10 Lakhs	10%
Above Rs.10 lakhs and upto Rs.50 lakhs	Rs.1 Lakh + 7.5% of the amount exceeding Rs.10 Lakhs
Above Rs.50 lakhs	Rs.4 Lakhs + 5% of the amount exceeding Rs.50 Lakhs

Security Deposit may be furnished in any one of the following forms.

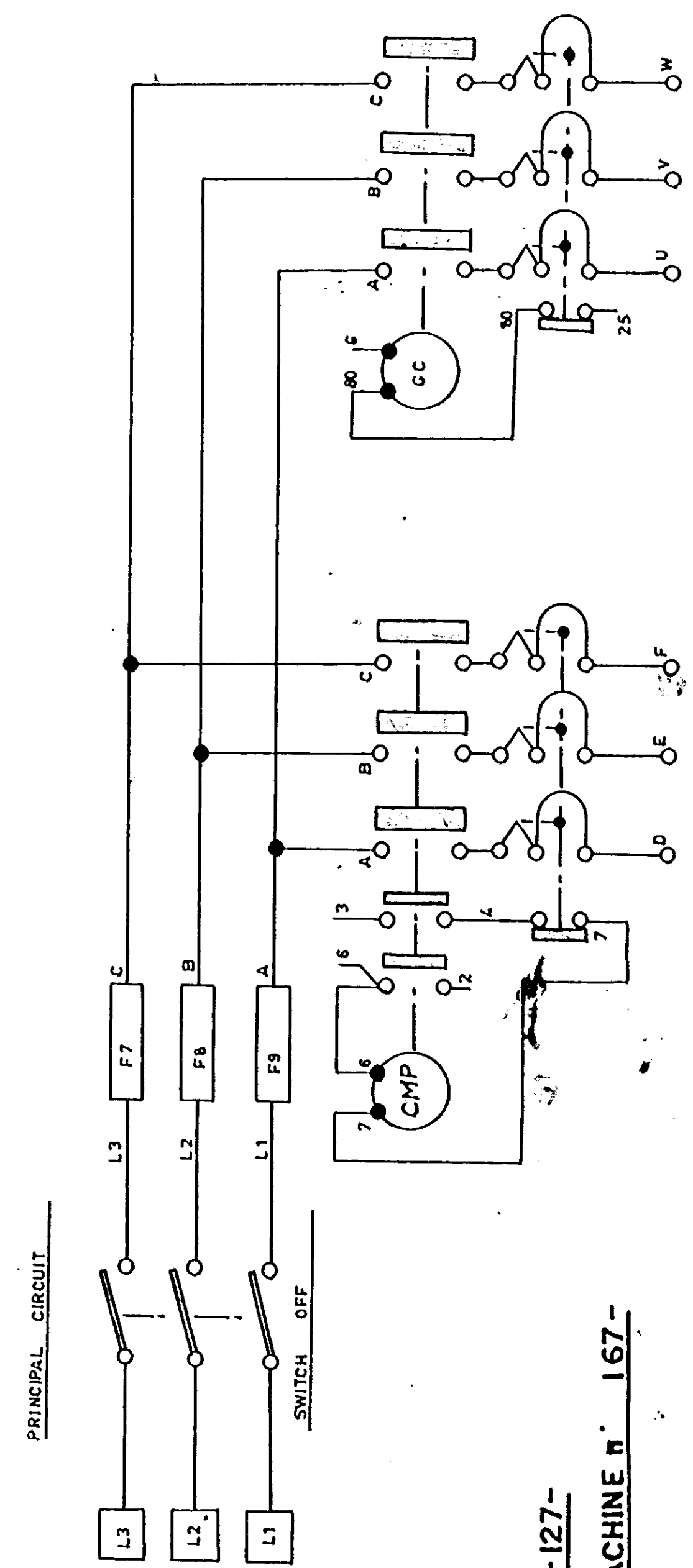
- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order, Demand Draft in favour of Bharat Heavy Electricals Limited, Trichirapalli payable at Trichirapalli
- iii) Local Cheques of Scheduled Banks, subject to realization
- iv) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc ( Certificate should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back)
- v) Bank Guarantee from Scheduled banks / Public Financial Institutions as defined in the Companies Act subject to a maximum of 50% of the total Security Deposit value. The balance 50% has to be remitted either by cash or in the other form of security. The Bank Guarantee format should have the approval of BHEL.
- vi) Fixed Deposit Receipt issued by Scheduled banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the Contractor, A/C BHEL, duly discharged on the back.
- vii) Security Deposit will also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of Security Deposit shall be paid by the Contractor before start of the work and the balance 50% will be recovered from the running bills.
- viii) EMD of the successful Tenderer shall be converted and adjusted against Security Deposit.

Note: Acceptance of security Deposit against sl.no.(iv) and (vi) above will be subject to hypothecation or endorsement on the documents infavour of BHEL. However BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

Security deposit shall not carry any interest. Security Deposit shall not be refunded to the Contractor except in accordance with the terms of the Contract.



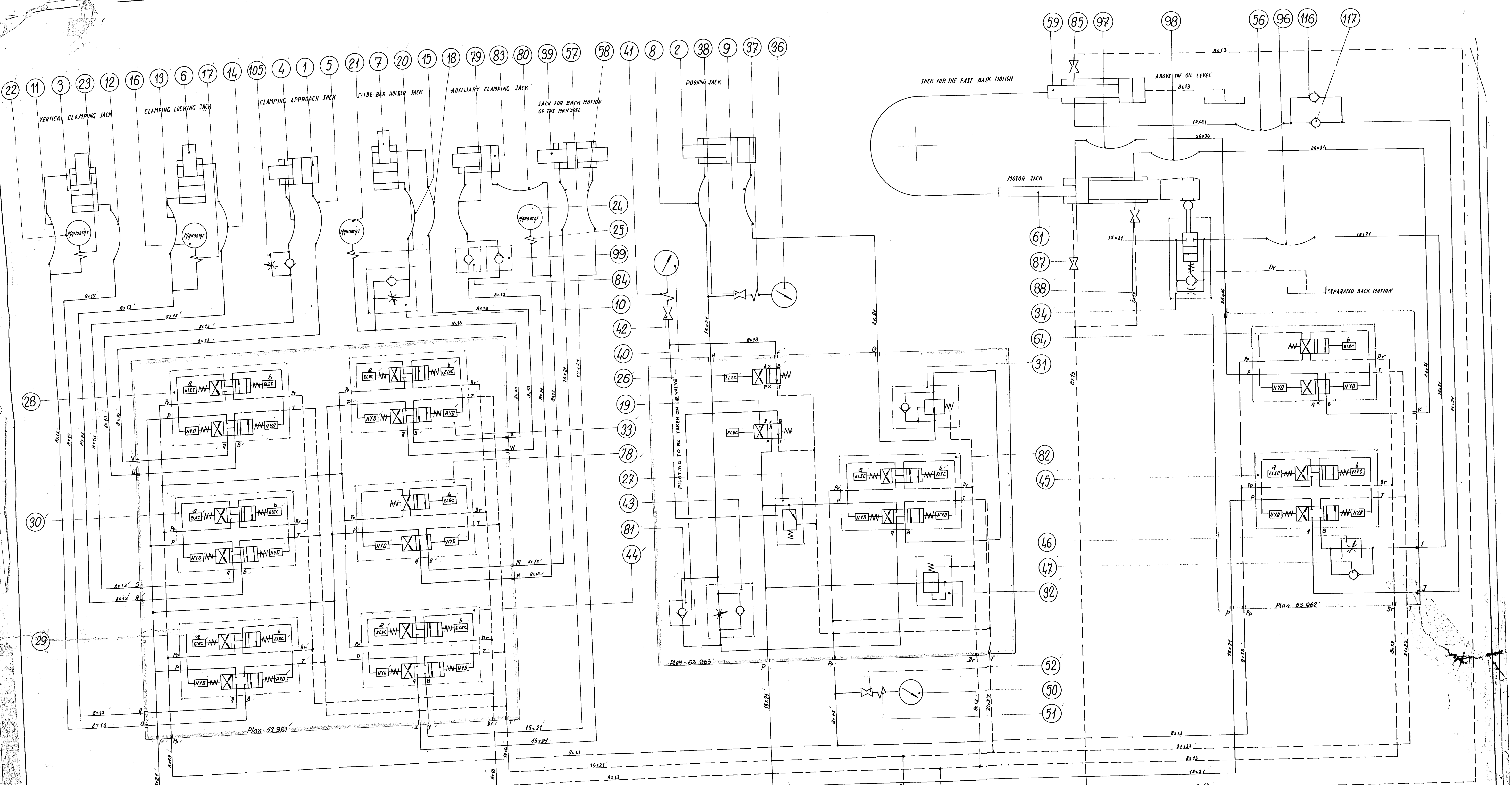
NAME - BENDING MACHINE		DATE	BY	FOR
REMARKS		DATE	BY	FOR
DRAWN BY		DATE	BY	FOR
CHECKED BY		DATE	BY	FOR
APP. BY		DATE	BY	FOR
STOS OFFICER		DATE	BY	FOR
DATE		DATE	BY	FOR
MACHINE NAME - SCHEME ELECTRIC WITH BOOSTER, WITH VERTICAL CLAMPING.		TYPE - CHG-127	INV. N°	02
				0-M-12a-0033



- SWITCH DESK**
- 81 STARTING STOP (2) 3-4 (3)
  - 82 EMERGENCY STOP 5-4 (5) 107 107 (5) 103 3-3 (3)
  - 83 RETURN OF THE ARM 23 19 (19)
  - 84 CYLINDER POSITION 9 118 (13)
  - 85 BACKWARD CLAMPING 105 107 (107) 105 104 (107) 104 105 (107)
  - 86 STOP BENDING 105 203 (67) 132 133 (72) 5 212 (27)
  - 87 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 88 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 89 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 90 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 91 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 92 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 93 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 94 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 95 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 96 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 97 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 98 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 99 FORWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
  - 100 BACKWARD PRESSURE DIE 105 107 (107) 105 104 (107) 104 105 (107)
- SWITCH CS AUTOMATIC MANUAL MOTIONS**
- C5.1 8.5-LEVEL (4)
  - C5.2 8.5-LEVEL (4)
  - C5.3 8.5-LEVEL (4)
  - C5.4 8.5-LEVEL (4)
  - C5.5 8.5-LEVEL (4)
  - C5.6 8.5-LEVEL (4)
  - C5.7 8.5-LEVEL (4)
  - C5.8 8.5-LEVEL (4)
  - C5.9 8.5-LEVEL (4)
  - C5.10 8.5-LEVEL (4)

-CHG-127-  
 -BENDING MACHINE n° 167-





SLIDE-BAR HOLDER CIRCUIT			Elmeco	2
1	JACK 60-84-10 TO 68-90-10	Tecalemit	1	
2	FLEXIBLE PIPE 1660-10	VICKERS	44	2
1	ELECTRO VALVE 24-54-10	Elmeco	39	1
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1
BACK MOTION OF THE MANDREL CIRCUIT				
2	FLEXIBLE PIPE 1660-10	Tecalemit	28	1
1	ELECTRO VALVE 24-54-10	GURY	25	1
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1
AUXILIARY CLAMPING CIRCUIT				
2	FLEXIBLE PIPE 1660-10	Tecalemit	28	1
1	ELECTRO VALVE 24-54-10	GURY	25	1
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1

VERTICAL CLAMPING CIRCUIT				
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1
AUXILIARY MOVEMENTS - MAIN CLAMPING CIRCUIT				
2	FLEXIBLE PIPE 1660-10	Tecalemit	28	1
1	ELECTRO VALVE 24-54-10	GURY	25	1
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1

PUSHING CIRCUIT				
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1
MAIN CIRCUIT				
1	JACK 100-80-80	Tecalemit	28	1
1	JACK 100-80-80	GURY	25	1

NOTE: TO CONNECT FLEXIBLE PIPES FOLLOW SPECIFICATIONS OF THE BOARD. 63.902

REVOLUTION OF THE PLATE CIRCUIT

MAIN CIRCUIT - CIRCUIT PRINCIPAL - MAINCIRCUIT

400 P.S.I. 36

0-17-12a-0048