



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT/ MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY

NOTICE INVITING TENDER

Phone: +91 431 257 7653
Fax : +91 431 252 0031
Email : skaruna@bheltry.co.in
Web : www.bhel.com

TWO PART BID

Tender to be submitted in two parts.

Enquiry Number:

2631600046

Enquiry Date:

08.08.2016

Due date for submission of quotation:

31.08.2016

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.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

| Item | Description | Quantity | Delivery |
|---|----------------------|----------|------------|
| 10 | 2 Ton Platform Truck | 5 Nos. | 25.02.2017 |
| | 4 Ton Platform Truck | 1 No. | 25.02.2017 |
| The above items are as per the technical specification, BHEL commercial terms & conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in) | | | |

Important points to be taken care during submission of offer

1. This is an E-Tender issued online through our E-Procurement Site <https://bheleps.buyjunction.in>.
2. Compliance Form to be duly filled and enclosed along with your offer, failing which the offer will not be considered for evaluation.
3. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.

BHEL's General guidelines / instructions including bank guarantee formats and list of consortium banks, commercial compliance form can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units) Bharat Heavy Electricals Limited page) under Enquiry reference "2631600046".

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

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


C. SARANYA
Senior Engineer
MM / Capital Equipment
BHEL / Tiruchirappalli - 620 014

BATTERY OPERATED PLATFORM TRUCKS -2 Ton**PART A****SECTION – I: QUALIFYING CRITERIA**

The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer:

| S. No. | REQUIREMENTS | VENDOR'S RESPONSE |
|---|---|-------------------|
| 1.0 | Only those vendors (OEMs), who have supplied and commissioned at least ONE BATTERY OPERATED PLATFORM TRUCK of capacity 2 Ton or higher with 4 wheels in the last five years (as on the original date of opening of this Tender) and such vehicle is presently working satisfactorily for at least one year after commissioning (as on the original date of opening of Tender) should quote. | |
| 1.1 | The BIDDER / VENDOR shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacture & Supply of Battery operated platform trucks. Indicate the actual experience. | |
| The vendor should submit following information where similar Equipment has been supplied for qualification of their offer. | | |
| 1.2 | Name and postal address of the customer or company where similar Machine is installed. | |
| 1.3 | Contact details (Phone No, email ID and address of the contact person of the customer. | |
| 1.4 | Month and Year of commissioning of the machine. | |
| 1.5 | Application for which the machine is supplied | |
| 1.6 | Along with the Technical offer, the Vendor should submit one Performance certificate from the customer for the satisfactory Performance of the machine supplied to them. For obtaining the Performance certificate, a suggestive format is provided in SECTION-IV below. | |
| 2.0 | 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. | |

SECTION – II

The BIDDER / VENDOR is requested to provide the following information:

| S. No. | REQUIREMENTS | VENDOR'S RESPONSE |
|--------|---|-------------------|
| 3.0 | The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, where Battery operated platform trucks have been supplied during the last 2 or three years. | |
| 4.0 | Details of Battery operated platform trucks supplied to other BHEL units, if any. (Unit Name, Year of commissioning & capacity) | |
| 5.0 | Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centre's in South India. | |

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| 6.0 | Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment. | |
|------------|---|--|

SECTION – III

The BIDDER to note:

| S. No. | REQUIREMENTS | VENDOR'S RESPONSE |
|-------------|--|-------------------|
| 7.0 | The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] & commercial offer 2. Price Bid. | |
| 8.0 | The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHEL and Offer Details submitted by the Bidder , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement where specific details are required may lead to disqualification of the Technical Offer. | |
| 9.0 | The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible. | |
| 10.0 | The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation. | |

SECTION – IV


The performance certificate should be produced **on Customer's Letter Head**.

PERFORMANCE CERTIFICATE

| | | |
|---|--------------------------|--|
| 1. Supplier of the Platform Truck | | |
| 2. Make & Model of the Platform Truck | | |
| 3. Month & Year of Commissioning | | |
| 4. Application for which Truck is used | | |
| 5 | a) Platform size | |
| | b) load Capacity in Tons | |
| | c) Motor capacity in KW | |
| 6. Performance of the Machine (Tick the suitable) | | Satisfactory Not Satisfactory |
| 7. After sales service (Tick the suitable) | | Satisfactory Not Satisfactory |
| 8. Any Other remarks | | |
| Date: | | Signature & Seal of the Authority Issuing the Performance Certificate |


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Particulars & BHEL specification

| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|--|--|
| 3.17 | OPERATOR AREA: Comfortable seat with back rest ergonomically positioned with easy reach to steering wheel with optimum leg space for operating the accelerator and brake pedals. The control panel shall be visible and easily accessible. | Vendor to confirm |
| 3.18 | TYRES: Solid Rubber (Cushion) non-skid bonded type Tyres to be provided. The tyre should be used for superior ride comfort, heavy duty, long operating life, low rolling resistance and wide foot print. | Vendor to confirm & specify size |
| 3.19 | BRAKE: Internally expanding foot operated hydraulic brakes on rear wheels for smooth braking action. Parking Brake shall be actuated by hand operated lever on the left hand side of the operator's seat. | Vendor to confirm |
| 3.20 | SUSPENSIONS: The suspension shall be through leaf springs on both axles and shock absorbers on the rear axles. | Vendor to confirm |
| 3.21 | STEERING: The steering mechanism shall consist of automotive steering gear unit. The entire unit shall be suitably inclined towards operator's seat for drive comfort. | Vendor to confirm |
| 3.22 | Front Head lights and Red reflector at the rear | Vendor to confirm |
| 3.23 | Hook to be provided for towing purpose | Vendor to confirm |
| 4.0 | ELECTRICALS : | |
| 4.1 | DRIVE AND TRANSMISSION: The vehicle shall be driven by DC motor of suitable rating and insulation meant for traction motors. The silent and efficient power shall be ensured through fully enclosed oil bathed gear box mounted directly on motor and output shaft of gear box connected to rear axle suitably. | Vendor to confirm |
| 4.2 | DC-Motor: Totally enclosed series wound traction motor of suitable capacity of make acceptable to BHEL (Preferable Makes: ROTOTECH/PRIME MOVER/ BENLEC) | Vendor to confirm |
| 4.3 | MOTOR RATING: 36V and not less than 3.5 H.P (2.6 Kw) | Vendor to confirm |
| 4.4 | BATTERY: Preferably EXIDE make Lead acid traction batteries of suitable capacity of 36V and 290AH min. shall be supplied. | Vendor to confirm |
| 4.5 | BATTERY CHARGER: Battery charger of suitable capacity and make acceptable to BHEL-for input power supply of single phase 230V. (Preferably SIRIUS make) | Vendor to confirm |

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| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|---|--|
| 5.0 | CONTROLS: | |
| 5.1 | CONTROL PANEL: The control panel shall have conveniently located simple controls such as ON-OFF key switch, forward and reverse selection switch, emergency power cut off switch, Horn push button, Head light switch, etc. | |
| 5.2 | <p>SPEED CONTROL: Microprocessor based "MOSFET ELECTRONIC CHOPPER CONTROLLER" shall be provided for smooth and step less control of speed and acceleration. The system shall have the following features.</p> <ol style="list-style-type: none"> 1. Indicator to display the charge level of the battery 2. Various safety measures like <ol style="list-style-type: none"> a) Potentiometer fault protection. b) Thermal protection. c) Low voltage relay for battery protection with alarm indication. | Vendor to confirm |
| 6.0 | <p>SPARES: Critical spares shall be quoted for two years trouble free operation. A sample list of spares is given below. However the vendor has to submit a list of spares in the technical offer with description, part number, quantity etc. without price details.</p> <ol style="list-style-type: none"> a) Oil seals b) Brake shoe lining with Rivet c) Master cylinder kit d) Wheel cylinder kit e) Carbon brush f) Fuses (suitable) g) Micro switch h) Moving contact i) Fixed contact | Vendor to specify |

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| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|---|--|
| 7.0 | <p>TOOLS FOR O&M: Complete set of Tools required for Maintenance. Vendor has to list down in the offer.</p> | 1 Set |
| 8.0 | <p>DOCUMENTATION (O & M MANUALS): 6 hard Copies of Operation & Maintenance Manual and one soft copy of all documentation in CD containing the following technical details.</p> <p>The O&M Manual should contain the following:</p> <ul style="list-style-type: none"> a) Complete set of parts available in the vehicle with part Nos. b) Complete operating instructions. c) Complete maintenance instructions. d) Entire Circuit diagram with Chopper controller Connections. e) Detailed technical specification for all components, including bought out items (Electricals, Mechanicals, and Electronics items). | Vendor to confirm & specify |
| 9.0 | <p>INSPECTION: Each Platform Truck shall be tested for its performance at vendor's works in presence of BHEL engineer prior to despatch.</p> | Vendor to confirm |
| 10.0 | <p>COMMISSIONING: Commissioning of the Platform Truck and Performance Prove – Out for its Capacity and Smooth Running (at BHEL Works) shall be the responsibility of the supplier.</p> | Vendor to confirm |
| 11.0 | <p>PERFORMANCE GUARANTEE: The Performance of the Platform Truck and/or the Components / Sub-Assemblies / Bought-Out-items shall be guaranteed for a minimum period of 12 months from the date of commissioning.</p> | Vendor to confirm |

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SECTION - III

The BIDDER to note:

| S. No. | REQUIREMENTS | Vendor's Response |
|--------|--|-------------------|
| 7.0 | The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] & commercial offer 2. Price Bid. | |
| 8.0 | The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHEL and Offer Details submitted by the Bidder , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement where specific details are required may lead to disqualification of the Technical Offer. | |
| 9.0 | The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible. | |
| 10.0 | The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation. | |

SECTION - IVThe performance certificate should be produced **on Customer's Letter Head**.**PERFORMANCE CERTIFICATE**

| | |
|--|----------------------------------|
| 1. Supplier of the Platform Truck | |
| 2. Make & Model of the Platform Truck | |
| 3. Month & Year of Commissioning | |
| 4. Application for which Truck is used | |
| 5 | |
| a) Platform size | |
| b) load Capacity in Tons | |
| c) Motor capacity in KW | |
| 6. Performance of the Machine (Tick the suitable) | Satisfactory Not Satisfactory |
| 7. After sales service (Tick the suitable) | Satisfactory Not Satisfactory |
| 8. Any Other remarks | |
| Date: _____ | |
| Signature & Seal of the Authority Issuing the Performance Certificate | |

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BATTERY OPERATED PLATFORM TRUCK - 4 TON

PART B - TECHNICAL SPECIFICATION

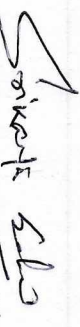
| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|---|--|
| 1.0 | PURPOSE: For handling and movement of material of general nature within Factory campus. | Vendor to note |
| 2.0 | SCOPE: 4 Wheeled Battery powered platform truck 4000 kg capacity with electronic AC controller and low voltage cut-off system, head lights, horn and reverse horn with necessary safety accessories. | Vendor to confirm |
| 3.0 | PLATFORM TRUCK CONFIGURATION AND PARAMETERS : | |
| 3.1 | CHASIS: Fabricated from rolled Channels and Plates of suitable thickness | Vendor to confirm |
| 3.2 | PLATFORM TYPE: Preferably Chequered | Vendor to confirm |
| 3.3 | PLATFORM SIZE: Length: 2650 - 2750 mm, Width: 1200 - 1300 mm | Vendor to specify |
| 3.4 | OVERALL LENGTH: 3850 - 4300 mm | Vendor to specify |
| 3.5 | WHEEL BASE: 1900 - 2300 mm | Vendor to specify |
| 3.6 | REAR OVERHANG: 750 - 1300 mm | Vendor to specify |
| 3.7 | FRONT OVERHANG: 500 - 1250 mm | Vendor to specify |
| 3.8 | TURNING RADIUS | Vendor to specify |
| 3.9 | GROUND CLEARANCE: 220 - 250 mm | Vendor to confirm |
| 3.10 | OVERALL HEIGHT: 1250 - 1600 mm | Vendor to specify |
| 3.11 | PLATFORM HEIGHT FROM GROUND (UNLADEN): 750 - 850 mm | Vendor to specify |
| 3.12 | TRAVEL SPEED - UNLADEN : 8 to 10 kph | Vendor to confirm |
| 3.13 | TRAVEL SPEED - LADEN : 7 to 9 kph | Vendor to confirm |
| 3.14 | WHEEL TRACK: 700 - 1100 mm | Vendor to specify |
| 3.15 | GRADEABILITY - UNLADEN : 10 - 20% | Vendor to confirm |
| 3.16 | GRADEABILITY - LADEN : 6 - 10% | Vendor to confirm |

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| Sl. No. | Particulars & BH&L specification | Vendor's technical offer (with complete details) |
|---------|--|--|
| 3.17 | <p>OPERATOR AREA: Comfortable seat with back rest ergonomically positioned with easy reach to steering wheel with optimum leg space for operating the accelerator and brake pedals. The control panel shall be visible and easily accessible.</p> | Vendor to confirm |
| 3.18 | <p>TYRES: Solid Rubber (Cushion) non-skid bonded type Tyres to be provided. The tyre should be used for superior ride comfort, heavy duty, long operating life, low rolling resistance and wide foot print.</p> | Vendor to confirm & specify size |
| 3.19 | <p>BRAKE:</p> <ol style="list-style-type: none"> 1. Electrical: Regenerative braking system should be provided. 2. Hydraulic: Internally expanding foot operated hydraulic brakes on rear wheels for smooth braking system should be provided. 3. Parking: Parking Brake should be actuated by hand operated lever on the left hand side of the operator's seat. | Vendor to confirm |
| 3.20 | <p>SUSPENSIONS: The suspension shall be through leaf springs and shock absorbers on both axles.</p> | Vendor to confirm |
| 3.21 | <p>STEERING: The steering mechanism shall consist of automotive steering gear unit. The entire unit shall be suitably inclined towards operator's seat for comfortable drive.</p> | Vendor to confirm |
| 3.22 | Front Head lights, Rear lights and Red reflector at the rear. | Vendor to confirm |
| 3.23 | Hook to be provided for towing purpose. | Vendor to confirm |
| 4.0 | <p>ELECTRICALS :</p> <p>DRIVE AND TRANSMISSION: The vehicle shall be driven by AC motor of suitable rating and insulation meant for traction motors. The driving wheels shall be driven by a short shaft with universal sliding coupling with suitable reduction gears housed in the main differential.</p> | Vendor to confirm |
| 4.2 | <p>AC-Motor: A suitable 3 phase AC motor controlled by an inverter for providing a smooth and step-less speed. (Preferable Makes: PRIME MOVER/ BENLEC/ ROTOTECH)</p> | Vendor to confirm |
| 4.3 | MOTOR RATING: 48V and 7 to 9 KW | Vendor to confirm |


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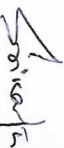

| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|---|--|
| 4.4 | <p>BATTERY: Preferably EXIDE make Lead acid traction batteries of suitable capacity of 48V and 290 AH to 300 AH shall be supplied.</p> | Vendor to confirm |
| 4.5 | <p>BATTERY CHARGER: Dual mode Battery charger of suitable capacity and preferably SIRIUS make for input power supply of three phase 400/440 V AC.</p> | Vendor to confirm |
| 5.0 | <p>CONTROLS:</p> | |
| 5.1 | <p>CONTROL PANEL: The control panel shall have conveniently located simple controls such as ON-OFF key switch, forward and reverse selection switch, emergency power cut off switch, Horn push button, Head light switch, etc.</p> | |
| 5.2 | <p>SPEED CONTROL: Microprocessor based "ELECTRONIC AC CONTROLLER" shall be provided for smooth and step less control of speed and acceleration. The system shall have the following features.</p> <ol style="list-style-type: none"> 1. Indicator to display the charge level of the battery 2. Various safety measures like <ol style="list-style-type: none"> a) Potentiometer fault protection. b) Thermal protection. c) Low voltage relay for battery protection with alarm indication. | Vendor to confirm |
| 6.0 | <p>SPARES: Critical spares shall be quoted for two years trouble free operation. A sample list of spares is given below. However the vendor has to submit a list of spares in the technical offer with description, part number, quantity etc. without price details.</p> <ol style="list-style-type: none"> a) Oil seals b) Brake shoe lining with Rivet c) Master cylinder kit d) Wheel cylinder kit e) Fuses (suitable) f) Micro switch g) Main contactor | Vendor to specify |

Savitri Kulkarni
SKSAHU 25072018

A. K. Kulkarni
9/5/2018

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| Sl. No. | Particulars & BHEL specification | Vendor's technical offer (with complete details) |
|---------|--|--|
| 7.0 | <p>TOOLS FOR O&M: Complete set of Tools required for Maintenance. Vendor has to list down in the offer.</p> | 1 Set |
| 8.0 | <p>DOCUMENTATION (O & M MANUALS): 6 hard Copies of Operation & Maintenance Manual and one soft copy in CD (for each truck) of all documentation containing the following technical details.</p> <p>The O&M Manual should contain the following:</p> <ul style="list-style-type: none"> a) Complete set of parts available in the vehicle with part Nos. b) Complete operating instructions. c) Complete maintenance instructions. d) Entire Circuit diagram with AC controller Connections. e) Detailed technical specification for all components, including bought out items (Electricals, Mechanicals, and Electronics items). | Vendor to confirm & specify |
| 9.0 | <p>INSPECTION: Each Platform Truck shall be tested for its performance at vendor's works in presence of BHEL engineer prior to despatch.</p> | Vendor to confirm |
| 10.0 | <p>COMMISSIONING: Commissioning of the Platform Truck and Performance Prove -Out for its Capacity and Smooth Running (at BHEL Works) shall be the responsibility of the supplier.</p> | Vendor to confirm |
| 11.0 | <p>PERFORMANCE GUARANTEE: The Performance of the Platform Truck and/or the Components / Sub-Assemblies / Bought-Out-Items shall be guaranteed for a minimum period of 12 months from the date of commissioning.</p> | Vendor to confirm |



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