

INR 1000 / USD 25 (Non-transferable)

HOOGHLY DOCK & PORT ENGINEERS LTD.

(A GOVT. OF INDIA UNDERTAKING)

UNIT : NAZIRGUNGE WORKS

P.O. - D.S. Lane, Howrah 711 109

WEST BENGAL - INDIA

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E-MAIL : hdpelnw@satyam.net.in

Website : www.hooghlydock.gov.in

Regd. Office :-

Martin Burn Hose,

1, R.N. Mukherjee Road (2nd Floor),
Kolkata – 700 001.

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To

GLOBAL TENDER

For

**MANUFACTURE & SUPPLY OF STEERABLE PROPULSION
SYSTEM FOR WORK BOAT – SIX NOS.**

Tender No.:-HP/NW/W BOAT/08-09/STRPR

SALE :- FROM 04.08.2008

UPTO 4 PM 18.08.2008.

DUE DATE OF SUBMISSION

UPTO 14.00 HRS. ON 19.08.2008.

DUE DATE OF OPENING

AT 15.00 HRS. ON 19.08.2008.

PLACE OF OPENING

NAZIRGUNGE WORKS,
HOWRAH – 711 109.

HEAD (MATERIALS)
NAZIRGUNGE WORKS

Notice Inviting Tender No. HP/NW/W BOAT/08-09/STRPR

1.0. Sealed offers (in two part bids) are invited from overseas manufacturers/their authorized Indian agents, indigenous manufacturers for manufacture & supply of STEERABLE PROPULSION SYSTEM for Work Boat – 6 Nos. as per technical specification and general terms & conditions appended herewith.

1.1. Pre-qualification criteria :

- (a) Average financial turnover during last 3 (three) years ending 31st March'2007 should not be less INR 250,00,000.
- (b) (i) Bidders must have executed similar orders for Shipyards during last two years.
- (ii) Bidders must have experience, manufacturing facilities, competent technical personnel and facilities for after- sales service.

Note :-

Similar order means supply of Steerable Rudder Propulsion systems for Ships/vessels.

1.2. Overseas bidders must have authorized agents/own establishment in India for providing services during commissioning and also after-Sales Service.

1.3. Tenders are to be submitted in two parts ad follows :-

Part – I (Techno-Commercial Bid) :

To contain copies of credentials in support of eligibility criteria as stipulated in clause nos. 1.1 and 1.2., technical particulars of the equipments offered, literatures, taxes, duties, delivery time, terms of payment, EARNEST MONEY DEPOSIT, and acceptance of terms and conditions of NIT.

Part – II : Only price (unit and total).

Both Part I & II separately sealed and marked shall have to be submitted under one sealed cover superscribing the tender enquiry number and due date of submission in the tender box at Nazirgunge Works positively within due date of submission.

1.3.1. Tender documents can be had from the office of Head (Materials), HDPEL, Nazirgunge Works against application and on payment of non-refundable INR 1000/ USD 25 (by cash/D.D. in favour of Hooghly Dock & Port Engineers Ltd., payable at Kolkata) on working days between 9.00 to 16.00 hrs except Saturdays & Sundays. Indian Agents of overseas manufacturers may collect the documents from HDPEL's designated office on application. Request for sending the bidding documents shall not be entertained.

Bidders downloading the documents from HDPEL's website are required to submit the tender fee INR 1000 / USD 25 through Demand Draft alongwith their Techno-commercial bid.

1.4. Earnest Money Deposit :

Tenderers are to submit Earnest Money Deposit for INR 15,00,000 or USD 35000 either in form of Demand Draft in favour of Hooghly Dock & port Engineers Ltd from any Nationalized Bank and payable at Kolkata OR in form of Bank Guarantee as per enclosed format. The EMD shall not bear any interest and shall be returned to unsuccessful bidders. Offers without tender fee and Earnest Money Deposit shall be summarily rejected. Bank Guarantee from foreign banks shall have to be confirmed by any Nationalized Bank in India.

1.5. Original tender documents duly stamped and signed are to be returned with Techno-Commercial bid as a token of acceptance of terms & conditions therein.

1.6. Offers are to be kept valid for a minimum period of 90 (ninety) days from the date of opening.

1.7. HDPEL reserves the right to reject any or all the offers without assigning any reason to the tenderers.

1.8. Purchase preference in respect of equipment/product of CPSE/CPSU will be applicable for similar equipment on tender as per extant policy of Govt. of India.

2. **TECHNICAL SPECIFICATION OF STEERABLE PROPULSION SYSTEM FOR 6 NOS. WORK BOATS FOR IWAI.**

No. of units required per vessel	-	2 off
Location of the unit	-	Stern of the vessel.
Total quantity	-	12 off

1. **Description :**

Two identical propulsion units are to be steerable rudder type. The propeller should be working within nozzle. The unit should be 360 degree rotating and also work as steering gear.

Rudder propellers

Both propulsion units of the steerable rudder propeller type shall be installed in a well box in the stern of the ship's structure. The units will be of approved make. The units shall be suitable of a continuous power on the input shaft of at least 20% in excess of the maximum continuous rating of the diesel engines at rated engine speed.

The rudder propeller units consist of an upper and a lower bevel gear box interconnected by a vertical stern and a propeller and nozzle.

The Units shall be provided with case hardened and ground bevel gears, high alloyed steel shafts and all bearing of the anti-friction roller type.

Furthermore, the units to be provided with hydraulic powered steering for 360 degree stern rotation with a steering installation of the electrical-hydraulic type with hydraulic motor built on the rudder propeller units.

Each rudder propeller shall have its own complete hydraulic pump unit coupled to the main diesel engine with hydraulic tank and valve panel.

Capacity of hydraulic pump to rotate the rudder propeller 360 degree in 30 seconds.

The propeller units will be provided with an integrated lubrication system with built-in circulating pump and the lube oil shall be kept under pressure by means of separate header tanks for each unit. These header tanks to be provided with low level alarm switches.

The rudder propeller to be provided with a 4-blade cuneal-bronze propeller turning in a steel nozzle with stainless steel plating inside the nozzle. Turning direction of propellers will be outboard.

Pneumatic clutch and disc brake :

The elastic coupling shall be installed between engine flywheel and input shaft of the pneumatic clutch. This pneumatic clutch will engage above idling speed. The clutch to be suitable for transmitting the maximum engine output.

Controls to be provided in such a way that engagement of clutch is not possible at too high engine speeds.

On the output side of the pneumatic clutch a pneumatically controlled disc brake to be provided to prevent rotation of the propellers in opposite direction and fix the shaft line arrangement at zero revolutions when clutch is disengaged. The brake is holding under air pressure and spring returned.

Alarm to be provided for low control air pressure.

The clutch and brake shall be remotely controlled from the wheelhouse and locally controlled in the engine-room.

2. **Technical Data :**

- (a) Rudder Propeller to be of rated power about 200 kw at input speed of 1800 rpm.
- (b) Propeller should be 4-bladed pushing type, material Ni-Al-Bronze.
- (c) Nozzle type should be suitable for steerable propulsion system.
- (d) Requisite clearance should be maintained between propeller tip and nozzle.
- (e) Rudder propeller unit should be provided with suitable upper gear box and underwater gear box. Heavy duty bearing should be provided with both the gear boxes with proper and efficient lubrication system.
- (f) The rudder propeller unit is to be mounted in a steel well with machined flange (proper gasket, securing bolts, nuts etc. to be supplied).
- (g) Necessary drawing for the outer well should be supplied in advance for fabrication and erection on board.
- (h) Suitable flexible coupling should be provided. Diesel Engine Data (drawing of flywheel and bell housing part) to be provided by Hooghly Dock based on which suitable flexible coupling can be selected.
- (i) Propulsion shafts – Each propulsion shaft line will consist of two cordon shaft sets, one on engine side and one on rudder propeller side interconnected by an intermediate shaft and a short intermediate shaft (floating shaft), passing the watertight bulk head.

The intermediate shafts are to be supported by a sufficient number of self adjusting type roller bearings, all of the same size. One of the bearings to be designed for taking the full axial load on the shaft. The intermediate shaft is to be fabricated of high quality steel with a minimum tensile strength of 500n per square mm and shall be provided with journals in way of the roller bearings. The watertight bulk head passage shall be provided with an oil lubricant lip seal in combination with a roller type shaft bearing.

(j) A complete hydraulic system for power steering to be provided with the following –

- A hydraulic power pack unit complete with relief valve, oil level gauge, temp, gauge, filter/breather, clogging indicator etc.
(Tank capacity approx. – 60 litres),
- A hydraulic pump driven off PTO on input,
- Steering motor built to the steering gear of rudder propeller.

(k) The electrical system of 24V DC (insulated from ground) to be incorporated. The power supply should be from two independent sources main and emergency.

(l) An electric control unit for steering and speed control system to be provided.

The system should have built in protection for over and under voltage (20V to 28 V operating range).

The unit should also be provided with –

- Push button for local steering control (non-follow-up),
- Selector switch local / remove control,
- Indication lamps for local control mode.

For speed setting linear motor to be built in ECU push pull cable to be provided for connecting with engine mechanical

Governor for speed adjustment / setting.

(m) Remote control unit in Wheel House to consist of following :-

- 2x1 Controller for way dependent (Follow Up) steering and engine speed control.
- 2x2 Jog switches for NFU emergency control.
- 2x1 Push buttons clutch engage / disengage.
- 2x1 Rudder angle indicator.
- 2x1 Rpm led bar.
- 2x1 Control switch NFU/HFU.

2x1	Alarm cassette with test and accept functions for the following alarms and indications :		
	Main power supply	-	failure
	Emergency power supply	-	failure
	Clutch engage	-	indication
	Hydraulic oil level	-	low
	Lub. oil level rudder propeller	-	low
	Clutch operating pressure	-	low
2x1	Dimmer for illuminated instruments wiring to central terminal		

(3) **GENERAL :**

The following should be included in the supply –

Set of drawings and schedules to be submitted within 14 days after order

Confirmation comprising :

- Detailed drawing / dimensions of propulsion unit and loose delivered items, Detailed drawings for hydraulic tank, hydraulic pump, hydraulic steering diagram.
- Electric schedules and wiring diagrams,
- Outer well / foundation drawing,
- Torsional vibration calculation.

Operation and maintenance manuals and parts lists in 3-fold, English language (one set per shipset).

Spare parts catalogue.

Spare parts :

- One set of bulbs and fuses for control system.
- One seal rudder propeller input shaft,
- One set seals rudder propeller steering shaft,
- One set oil level glass,
- Two spare hydraulic oil filter elements.
- one grease gun

Spare parts / inventories and tools shall be provided in accordance with the rules and regulations of the Classification Society (IRS).

(4) **Inspection :**

Indian Register of Shipping or any member of IACS on behalf of IRS.

Special Requirement :-

1. Service Engineer should be made available at least for 15 days per shipset for commissioning of equipment and also to attend trial run of vessel.
2. The equipment & system will remain guaranteed in writing by party confirming for trouble free service for a period of 24 months from date of supply or 18 months from date of commissioning which ever is earlier against faulty design, manufacture, workmanship, defective materials.
3. Bidder to confirm availability of spares for at least 10 years from date of commissioning.
4. Bidder to furnish list of spares and its prices for 5000 hours operation.
5. All class & statutory rule requirements are to be complied with.

3. GENERAL TERMS & CONDITIONS

3.1. Acceptance of Order :

In the event of placement of order, the successful bidder has to convey acceptance of the Purchase Order in writing within seven days from the date of receipt.

3.2. Delivery time:

To be completed within 6 (six) months. However best possible time shall be considered as well.

3.3. Price : –

Price to be quoted by overseas bidders should be FOB basis and in case of indigenous bidder the same shall be delivery upto HDPEL basis. Applicable tax, duties, insurance etc. are to be indicated in the techno-commercial bid. For overseas supply the freight & insurance will be borne by HDPEL in INR.

3.4. Security deposit :

In the event of placement of order the successful bidder has to submit Security Deposit for 5 (five) percent of the order value in form of Bank Draft drawn in favour of Hooghly Dock & Port Engineers Ltd., payable at Kolkata by any Nationalized Indian Bank or inform of Bank Guarantee as per enclosed format. In the event of submission of Bank Guarantee from Foreign Bank, the same needs to be confirmed by any Indian nationalized Bank. Security deposit to be submitted shall not fetch any interest and shall be returned/refunded on successful execution of order. Security deposit is to be submitted within 15 (fifteen) days from the date of receipt of Purchase Order.

3.5. Performance Guarantee :

Successful bidder has to submit Performance Bank Guarantee for 10% value of the order towards quality of material supplied and performance of the equipments valid for a period of 18 (eighteen) months from the date of commissioning or 24 months from the date of supply which ever is earlier. The Bank Guarantee to be submitted shall have validity of 18 months with additional claim period of one month. In the even of submission of Bank Guarantee issued by Foreign Bank, the same needs to be confirmed by any of nationalized Bank in India. Format of Bank Guarantee is enclosed.

3.6. Liquidated Damage :

In the even of delay in executing the order beyond the stipulated delivery period, Liquidated damage @ 1 (one) percent per week's delay or part thereof subject to a maximum of 10% of the order value shall be imposed and stand recoverable from the successful bidder.

3.7. Risk Purchase:

In the event of failure in executing the order within the stipulated delivery period, HDPEL reserves the right to cancel the order, forfeit the Security deposit and procure the materials from any other source at the risk & cost of the supplier.

3.8. Force Majeure :

It shall be limited to "Act of God" or Lockout at your Works. The same is not applicable to your sub-contractor. Such information are to be given to the buyer instantly on occurrence.

3.9. Arbitration & Jurisdiction:

In case of any dispute, the matter shall be settled by arbitration by the Chairman & Managing Director of Hooghly Dock & Port Engineers Ltd. who will be the sole arbitrator. The High Court at Kolkata shall have jurisdiction to deal with and decide any legal matter or dispute whatsoever arising out of this contract.

FOR HOOGHLY DOCK & PORT ENGINEERS LTD.,

HEAD (MATERIALS)
NAZIRGUNGE WORKS

Encl: Formats for Bank Guarantees.(2 nos.)

PERFORMANCE GUARANTEE

This agreement made this _____ day _____ 200____
between _____

(Name of the Bank & Address)

_____ (hereinafter called the 'Bank' which expression shall unless repugnant to the context or contrary to the meaning thereof include its successors and assignees) of the one part and Hooghly Dock & Port Engineers Ltd., a Government of India undertaking having its registered office at 1, R. N. Mukherjee Road, Kolkata – 700 001 (hereinafter called 'the Company' which expression shall, unless repugnant to the context or contrary to the meaning thereof include its successors and assignees) of the other part.

Whereas M/S _____

(Name & Address of the Company)

_____ (hereinafter called the Contractor's which expression shall unless repugnant to the subject or context include its successors and assignees, legal representatives and administrators) received from the company an order no. _____ dated _____ (hereinafter called the said Agreement) to manufacture / supply / erect / commission / repair / renovate _____

(Order Particulars)

_____ in accordance with the said Agreement. AND WHEREAS the contractor has undertaken to manufacture / supply / erect / commission / repair / renovate _____ and is required under the said Agreement to furnish one Bank Guarantee for Rs. _____ (Rupees _____) being _____ % of the price of the contract value to the Contractor towards due performance and workmanship of the goods for a period of _____ months from the date of dispatch / commission.

And whereas the Bank at the request of the Contractor has agreed to furnish in favour of the Company the said bank guarantee in the manner hereinafter appearing.

2. We, _____ Bank _____ branch do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractors of any of the terms or conditions contained in the said Agreement or by reason of the Contractor's failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____

3. We, _____ Bank, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or till the Company certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on us in writing and received by us on or before the _____ we shall be discharged from all liabilities under this guarantee thereafter.

4. We, _____ Bank further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) and or forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s) or by any such matter of thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

5. We, _____ Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

6. Notwithstanding anything contained herein before our liability under this guarantee will be restricted to Rs. _____ (Rupees _____). Unless a claim in writing is made on us on or before _____ day of _____ 200 ____ we will be discharged from all our liabilities hereunder.

Dated the _____ day of _____ 200____ for
_____ Bank Ltd.

Note: This bank guarantee should be submitted in the banker's sealed envelope and the claim period should be for 30 days from date of expiry of this B.G.A confirmatory letter from the issuing bank is also to be submitted in this context.

FORMAT FOR
BANK GUARANTEE BOND (IN LIEU OF EMD/ S.D)

In consideration of Hooghly Dock & Port Engineers Ltd. (A Govt. of India Undertaking), a Company incorporated under the Company's Act 1956 and having its Registered Office at 1, R.N. Mukherjee Road, 2nd Floor, Kolkata-700001 amongst other places, a Unit at Nazirgunge, P.O. Danesh Shaik Lane, Howrah-711109, West Bengal (hereinunder called the "HDPE") having agreed to exempt M/s. (hereinafter called the "Tenderer"/"Seller") of Earnest Money Deposit / Security Deposit in cash for the due fulfillment by the said Tenderer/Seller of the terms and conditions contained in the said Tender/Purchase Order, on production of a Bank Guarantee for Rs.....(Rupees only) we (Bank) (Hereinafter referred to as the "Bank") at the request of M/s., against any loss or damage caused to or suffered or would be caused to or suffered by the HDPE by reason of any breach by the said Tenderer/Seller of any of the terms or conditions contained in the said Tender/Purchase Order.

We, (Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the HDPE stating that the amount claimed is due by way of loss or damaged caused to or would be caused to or suffered by the HDPE by reason of breach by the said Tenderer/Seller of any of the terms of conditions contained in the said Tender/Purchase order or reason of the Tenderer's/Seller's failure to perform the said Tender/Purchase order. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

We, (Bank) undertake to pay to the HDPE any money so demanded notwithstanding any dispute or disputes raised by the said Tenderer/Seller in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the said Tenderer/Seller shall have no claim against us for making such payment.

We,..... (Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Tender/ Purchase Order and that it shall continue to be enforceable till all the dues of the HDPE under or by virtue of the said Tender/Purchase order have been fully paid and its claim satisfied or discharged or till the HDPE Certified that the terms and conditions of the said Tender/Purchase Order have been fully and properly carried out by the said Tenderer/Seller and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before We shall be discharged from all liability under this guarantee thereafter.

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We, (Bank) further agree with the HDPE that the HDPE shall have the fullest liberty without our consent and without affecting in any manner. Our obligations hereunder from time to time or to postpone for any time or from time to time any of the powers exercisable by the HDPE against the said Tender/Seller and to forbear on enforce any of the terms and conditions relating to the said Tender/Purchase order and we shall not be relieved from

our liability by reason of any such variation or extension being granted to the said Tender/Seller or for any forbearance, act or omission of the part of the HDPE or any indulgence by the HDPE to the said Tenderer/Seller or by any such matter or think whatsoever which under the law relating to sureties would, but for this provision, have effect or so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank of the said Tenderer/Seller.

We, (Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the HDPE in writing.