Online Advance Payment Details to PPRA:-

Beneficiary Name: PUBLIC PROCUREMENT REGULATORY AUTH.

Online Reference Number: 12240292

Advance Paid Amount Rs. 500,000

Dated: 16-Dec-2024

Bank Name: HBL KPT Branch Karachi

Only for PPRA User IDs of MIS Department Karachi Port Trust

i) Prem Danicha

ii) Khurram Shahezad

DAILY BUSINESS RECORDER DATED: 25-12-2024



	WATER DREDOER 13	III HOUL
TENDER NO	LAST DATE OF ISSUE OF TENDER	DATE &TIME OF SUBMISSION OF TENDER
GT/12/24	14-01-2025 (Tender submission upto 1100 Hrs)	15-01-2025 (Tender opening at 1130 Hrs)

All the Interested firms who possess experience in relevant field may
obtain the tender documents available on downloaded version at
websites of KPT, PPRA & Ministry of Maritime Affairs as well as on the links
of Ministry of Maritime Affairs Twitter & Facebook Accounts. However,
tender document fees amounting to Rs 5,000/- via Pay Order in the name.
of Karachi Port Trust should be submitted at the time of tender submission
along with Technical Bid.

OR

All the interested firms who possess experience in relevant field may also obtain a set of Tender documents from CM&EE Tender Committee Room No.32 Ground Floor at KPT Head Office, Eduljee Dinshaw Road, Karachi during working hours, upon submission of following:

- (a). Request & Authorization letters from Proprietor/Director/Partner of firm on firm's letter head for issuance of bid document addressed to DY. Chief Elect. Engineer (S&C)-KPT. Authorized person of firm must show original CNIC and attached a copy of the same with authorization letter.
- (b). Document fee @ Rs 5,000/- via cash, pay order or bank draft drawn in the name of Karachi Port Trust (KPT) to be deposited by the applicant in HBL KPT Head Office Branch through Challan. The Challan will be issued from CM&EE Tender Committee Room No.32 Ground Floor at KPT Head Office, Eduljee Dinshaw Road, Karachi.
- (c). Copy of certificates of NTN,, GST, SRB & fresh copy of Active Tax payer List (ATL).
- (d). Copy of registration certificate with PEC in Technical Category ME-04, ME-05, ME-06 and Financial Category C-4.
- (e). Undertaking on Rs 100/- Stamp Paper (in original) to be submitted regarding not blacklisting of firm from KPT or any other other Government Organization/Agency.
- 2. BIDDING DOCUMENTS: All the bidding documents (either downloaded or purchase physically) should be properly filled, signed, stamped and submitted alongwith the Tender and also documents as mentioned above at Para-1(c to e) are also to be submitted, without which the tender will not be accepted.
- 3. BIDDING PROCESS: As per Clause 36 (b) of PPRA Rules-2004 for "Single Stage-Two envelope procedure". Tender documents duly filled, stamped & signed be submitted in Two Separately Sealed Envelops, one marked as "TECHNICAL PROPOSAL and the other as "FINANCIAL PROPOSAL". Both envelopes should be placed in one sealed envelop, indicating the name of the project, complete name & address of bidder and addressed to Chief Mech & Elect Engineer -II KPT.
- 4. BID SECURITY/EARNEST MONEY: Pay Order amounting to Rs 3,580,000/- (Rupees: Three Million Five Hundred Eighty Thousand Only) in favour of Karachi Port Trust (KPT) should be submitted (in original) with the Technical Proposal.
- 5. Pay Orders of Bid Security/Eamest Money and Tender Document Fee (in original) must be attached with the Technical Bid without which, the Tender shall not be accepted.
- 6. BID VALIDITY: Bid should be valid for 90 days from the date of opening of Technical Bid
- 7. DATE OF BID OPENING: The bid should reach in the Room No. 32 of CM&EE-II Deptt. at Ground Floor of KPT Head Office, Edulice Dinshaw Road, Karachi not later than 1100 hours on 15-01-2025. Technical Proposals shall be opened on the same day i.e. 15-01-2025 at 1130 hours in the presence of bidder's authorized representative, who may so wish to witness, at the CM&EE Tender Committee Room No.32 at KPT Head Office, in the first instance Technical Bid will be open and Financial Proposals of only the Technically qualified firms shall be opened later on.
- 8. KPT reserves the right to accept any or to reject any or all the offers at any time and annul the process as per PPR-2004.

Chief Mechanical & Electrical Engineer-II
M.I Yard, West Wharf Karachi.
Telephone No. 021-99214955, Fax No. 021-99214450
http://www.kpt.gov.pk & http://www.ppra.gov.pk

Account Victoria

TECHNICAL EVALUATION CRITERIA

MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

The firm should fulfill the following mandatory requirement / conditions and supporting documents should be submitted accordingly:

(Non compliance of any **Mandatory Conditions** will lead to rejection of bid)

S.#	DESCRIPTION	Comply	Not Comply	Remarks	Supporting documents Placed at Flag / S.No.
1.	In case of companies and firms, last 03 years Audited financial statements are to be provided showing minimum average turnover of Rs 100 million OR				
	In case of individuals / Sole proprietors, last 03 years tax returns filed with FBR are to be provided showing minimum turnover of Rs 100 million minimum on average for 03 years				
2.	The firm is not blacklisted by KPT or any other Government organization/Agency undertaking on Rs.100 /- stamp paper				
3.	Registration with Income Tax Deptt. provide photocopy of valid NTN Certificate and Active Tax Payer List (ATL)				
4.	Valid copy of SST & GST Certificate				
5.	Registration with Pakistan Engineering Council. Registration Certificate in Technical Category ME-04, ME-05, ME-06 and Financial Category C-4.				
6.	The bidder shall submit their bid on original tender documents duly filled with each page signed and stamped against each column as token of acceptance				
7.	a. The bidder must comply all technical specification against the KPT's tender specification duly filled with each column of each page and duly signed, stamped along with required original / copy of technical literature of offered equipment and drawings required in technical specifications. b. In case any deviation against the KPT technical specification the same may be elaborated separately by the bidder.				
8.	In case of Joint Venture (JV) the leading firm should be registered in Pakistan Engineering Council (PEC) relevant category and having experience in shipbuilding / repair and maintenance of floating crafts				

II). TECHNICAL REQUIRMENT

Minimum Qualifying Marks =70% in each category
The points / marks shall be given in the following manners:

Summary of marks / points

	Category	Maximum point / marks	To qualify Minimum points to be scored separately in each category
a.	Status of firm	10	7 i.e 70% of 10 marks
b	Professional Capability	30	21 i.e 70% of 30 marks
C.	Relevant Experience	40	28 i.e 70% of 40 marks
d	Financial	20	14 i.e 70% of 20 marks
To	tal	100	70 i.e 70% of 100 marks

SN#	<u>Description</u>		Min. marks	Max. marks
a.	STATUS OF FIRM (Max. Marks 10) (Min Marks 07)			
	i. Private Limited / Corporation ii. Partnership iii. Proprietor	05 marks 04 marks 3.5 marks	3.5 Marks	05 Marks
	 i. Completion of 15 years of firm established ii. Completion of 10 years of firm established iii. Completion of 08 years of firm established iv. Below 08 years of firm established (Evidence to be provided) 	04 marks 3.5 marks 00 marks	3.5 Marks	05 Marks
	<u>Total</u>	1	07 Marks	<u>10 Marks</u>

1	PROFESSIONAL CAPABILITY (Max. Marks 30) (Min Marks 21)			
	i) Managerial staff (10 Marks)			
	CEO / Director (15 years experience)	10 marks	07 marks	10 marks
	Director / General Manager Engineering / Technical (10 years)	8.5 marks		
	experience)			
	Director / General Manager Finance	07 marks		
	(10 years experience)			
	ii) Technical staff (10 Marks)			
	Provide details of Technical Staff involved in shipbuilding / repair			
	maintenance of floating craft			
	Marine / Naval Architect Engineer having 08~10 years	40	07	40 '
	experience in shipbuilding / repair and maintenance of floating	10 marks	07 marks	10 marks
	craft			
	Mechanical / Electrical / Electronic / Mechatronics Engineer	O.E. mariles		
	having 08~10 years experience in ship / craft repairing	8.5 marks		
	Mechanical / Electrical / Electronic / Mechatronics Engineer			
	having 05~08 years experience in ship / craft repairing	07 marks		
		UI IIIaiks		
	iii) Work Facility (10 marks)			
	Details to be provided regarding miscellaneous work of floating			
	craft, repairing workshop facility, fully equipped with machine &			
	tools required for subject work having following accessories			
	Repairing facility for floating craft	04 marks	07 marks	10 marks
	(workshop facility)			
	Electrical and Mechanical facilities	03 marks		
	24/7 facility for diagnosing faults	03 marks		
		Total	21 Marks	30 Marks
	EXPERIENCE OF FIRM			
	(Max. Marks 40) (Min Marks 28)			
	Give references to (documentary proof)			
	EXPERIENCE OF FIRM			
	• 07 projects for ship / craft repair and maintenance contracts (i.e. TSHD,	40 marks	28 marks	40 marks
	Bucket Dredger, Hopper Barges, Tugs, Floating Cranes, Ferry Boats)			
	• 05 projects for ship / craft repair and maintenance contracts (i.e. TSHD,	34 marks		
	Bucket Dredger, Hopper Barges, Tugs, Floating Cranes, Ferry Boats)			
	O3 projects for ship / craft repair and maintenance contracts (i.e. TSHD, Bucket Dredger, Hopper Barges, Tugs, Floating Cranes, Ferry Boats)	28 marks		
	1	Total	28 Marks	40 Marks

d.	FINANCIAL SOUNDNESS Max. marks-20 (Min. marks 14)		Min marks	Max marks	
	Turnover				
	200 million and above	20 Marks			
	150 million and less than 200 Million	16 Marks	14	20	
	100 million and less than 150 million	14 Marks	Marks	Marks	
	Below 100 Million	00 Marks			
		Total	14 Marks	20 Marks	
	Grand 1	Γotal (a+b+c+d)	70 Marks	100 Marks	

NOTE

A. Contract may be awarded item wise to the lowest responsive bidders, provided it aligns with the overall objectives of cost efficiency and operational compatibility.

B. The selection of firm would be made via "Most Advantageous Bid" with 70% weightage to be given to Technical Criteria and 30% weightage to be given

to Financial Bid.

Formula for evaluation:

- > Technical Score = <u>Bidder's Technical Score</u> X 70
 - Total Technical Score
- Financial Score = Lowest Bid Price X 30
 Bidder's Quoted Price
- > Total Score = Technical Score + Financial Score

MECH ENGINEER (W/S)

DY CHIEF MECH ENGINEER (W/S)

CHIEF MECH & ELECT ENGINEER-I

KARACHI PORT TRUST

MECHANICAL & ELECTRICAL DEPARTMENT

Documents for
TECHNICAL BID
(NOTE: PRICE CAN NOT BE QUOTED IN TECHNICAL BID)

Name of work:

TENDER DOCUMENTS FOR THE:

MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

Contents:

- i. Tender Notice (as Published in Press & Websites of KPT & PPRA).
- ii. Instruction for Tender (02 Pages).
- iii. The Tender and Performa 'A' & 'B' (04 + 01 Pages).
- iv. The Scope of Work (04 Pages).
- v. The Bill of Quantity (B.O.Q) (04 Pages) (for Tech Bid)
- vi. Technical Evaluation Criteria (04 Pages)
- vii. The General Conditions of Contract with the Form of the Agreement and Bond (19 Pages).

One complete set of these Tender Documents duly filled in, signed & stamped (without mentioning the price in Technical Bid), must be delivered at CM&EE's Tender Committee Room No. 32 at Ground Floor, KPT Head Office before 11.00 A.M on 15-01-2025 in a sealed cover superscribed as per the Tender Notice.

Issued to		
	Name and Addresses of Tenderer:-	
Data		
Date		

N. B: All tender documents read carefully, to be filled properly and duly singed & stamped each paper. Incomplete tender bids will not be considered.

NOTE: The Bid Security/Earnest Money amounting to Rs 3,580,000/- (Rupees: Three Million Five Hundred Eighty Thousand Only) and Tender Documents Fee amounting to Rs 5,000/- (Non-Refundable) (Rupees: Five Thousand Only) both in the shape of Pay Orders in-original be submitted along-with Technical Proposal in the name of Karachi Port Trust (KPT) without which the tender will not be accepted.

KARACHI PORT TRUST MECH. & ELECT. ENGINEERING DEPARTMENT-II

"INSTRUCTION FOR TENDER"

- 1. The Tenderer should examine carefully the General Conditions of Contract, the Specification and the drawing supplied herewith. He should visit and inspect the Site on his own responsibility and at his own expense to obtain all the information which may be necessary for the purpose of making a Tender.
- 2. The Tenderer set down the rates and prices against the items in the Bill of Quantities are to be the full inclusive value of the finished work described there under and shall cover profit and all obligations of every kind which under the Contract are to be borne by the Contractor.
- 3. The Quantities set out in the Bill of Quantities are estimated only and their accuracy or inaccuracy shall in no way effect the validity of the Tender or of any Contract based thereon. The total amount of the various item set out in the Bill of Quantities at the rates or prices inserted by the Tenderer shall be stated in each case, but this figure is required solely for the purpose of facilitating the comparison of the various Tenders received and shall not be deemed to be the actual sum which is to be paid to the Contractor for the execution of the work. The actual sum to be paid to the Contractor whose Tender is accepted will be determine by measuring the work, actually done in accordance with the Contract and valuing it the rates or prices inserted by the Contractor in the Bill of Quantities.
- **4.** The Contractor whose Tender accepted will be required to enter into an Agreement Form of which (subject to any necessary adaptations) will be as set out in the Form appended to the General conditions of the Contract.
- 5. The Contractor whose Tender accepted will also be required to furnish as Security deposit in cash, or in approved public Rupee security or in approve Bankers guaranteed Bond valid till the successful completion of the Contract, for the sum equivalent to Five percent (5%) of the Contractor price for the due performance of the Contract, (see Clause-9 of the General Conditions of Contract).
- **6. Tenders must be made on the separate Form** supplied herewith must be accompanied by two copies of the Bill of quantities fully price, monies out and totaled in ink and sign by Tenderer. Tender must be reached to the Chief Mechanical & Electrical Engineer Karachi Port Trust, not later than the time stated in the Tender Notice.
- 7. No unauthorized alteration may be made in the Form of Tender or the accompanying Documents and if alteration is made or if the Bill of Quantities is not properly filled in, or if these instructions are not fully complied with the Tender may be rejected.
- 8. Tenderer must be produced evidence with their Tender, that they had experience and are fully capable carrying out the work of this class and magnitude and must give full details of the plant they propose to use on the works in **Proforma "A"**.
- **9.** The Board of Trustees of the Karachi Port Trust reserves to themselves the right to reject any Tender without any reason or to accept any Tender in whole or in part and do not hind themselves to accept the lowest or any Tender.
- 10. Should there be any doubt or obscurity as to the meaning of any Tender Documents or if any further information is required, the Tenderer must address his enquiry in writing (in duplicate) to the Chief Mechanical & Electrical Engineer Karachi Port Trust, not later than two weeks before the date fixed for the delivery of Tender.
- **11. Unless otherwise agreed all payments to be made** to the Contract, under the Contract will be made locally in Pakistan Rupee Currency.

- 12. Each Tender must be accompanied by the requisite amount of Earnest money deposit either in cash or a Bank certified Cheque to the Chief Accounts Officer Karachi Port Trust. (Please Note: UBL Bank Guarantee are not acceptable). Bankers Guaranteed Bond valid for an indefinite period or a pay order drawn in favor of the Chief Accounts Officer Karachi Port Trust. The earnest money will be refunded to the unsuccessful Tenderer to after the Tender are decided. It will be optional with the successful Tenderers to re-appropriate the Earnest Money or part of the Earnest Money for the payment or part payment towards the Security deposit. (See Clause-9 of the General Conditions of Contract).
- **13.** The Tender must be sent in a sealed cover envelope required as described in the Tender Notice and must be reached to the Chief Mechanical & Electrical Engineer Karachi Port Trust, before the due time and date fixed for opening of the Tender.
- **14.** The Contractors have to quote items rate as per schedule of quantities attached with Tender. Any insertion of percentage whether below or above on the rates after filling of the rates shall make the Tender invalid and the Tender will not be considered.

CHIEF MECHANICAL & ELECTRICAL ENGINEER

KARACHI PORT TRUST

KARACHI PORT TRUST MECH. & ELECT. ENGINEERING DEPARTMENT-II

"THE TENDER"

Tender are required to fill in the blanks space in this tender Form and the attached Performa "A" To.

The Chief Mechanical & Electrical Engineer
KARACHI PORT TRUST
KARACHI
PAKISTAN

Description of work	
1. Having examined the drawing, General Conditions of Corany), specification and Bill of Quantities for the above named on the said works in conformity with the said Drawings General Conditions of Contract (if any) specification and Bill of the conditions of Contract (if any) specification and Bill of the conditions (Rs. may be ascertained with the said conditions.	works. We the undersigned offer to carry neral Conditions of the Contract , Special of quantities for the sum of Rupees:

- 2. We undertakes if our tender is occupied in whole or in part to commence the work with in days of receipt of the Engineer's order to commence and to complete and deliver the whole of the work comprised in the Contract with in Days calculated form the last days of the aforesaid period in which the works are to be commenced.
- **3.** If our tender is accepted in whole or in part we will furnish a Security deposit for due performance of the Contract in accordance with **Clause-9 of the General Conditions of Contract**.
- **4.** We agree to abide by the tender for a period of Days form the date fixed for receiving same and it shall remain binding upon us may be accepted at any time before expiration of that period.
- **5.** Unless and until a formal Agreement is prepared and executed, this tender, together with your written acceptance thereof, shelf constitutes a binding Contract between us.
- **6.** We understand that you are not bound to accept the lowest or any tender; you may receive and accept any tender in part or in whole.
- **7.** We further agree to pay all cost toward the execution of the Contract Agreement including the cost of stamps.
- **8.** We agree that should we withdraw the offer within the aforesaid period or fail to execute the formal Contract Agreement and / or make the required Security deposit, the Board of Trustees of Karachi Port Trust shall be at liberty at their absolute discretion to appropriate our earnest money deposit of Rs Either as agreed liquidated damages without any proof whatsoever of the extend of such damages or an account, reserving to themselves the right to recover from us any further loss or expenses to which they may have been put directly or indirectly by reason of any failure on our part as aforesaid.

9. * We have deposited / sent by Cheque guaranteed Bond for Rs	No / enclose a Pay Order / enclose a Bank
	unts Officer, Karachi Port Trust and hold his receipt No
10. We agree to maintain the work in good of its completion.	order for a period of Months, from the date of
Dated	TENDERER
Place	(Full signature)
Signed by Mr	For and on
Behalf of Messrs	
<u></u>	
*Delete whichever is Not Applicable	

(THE TENDER Page 2/4)

KARACHI PORT TRUST MECH. & ELECT. ENGINEERING DEPARTMENT-II

PROFORMA "A"

(To be submitted with the tender)

Particulars	Details
Experience as a Contractor.	
Work carried out in the past with detailed cost, particulars and the year in which they were under taken etc.	
Bankers reference regarding Financial status.	
4. Whether registered with any other Department or Organization? If so, give details.	

(THE TENDER Page 3/4)

Particulars	Details
5. Plant and equipment in possession(Give Detail with cost)	
Technical personnel employed; give Names and other details.	,.
7. If your firm registered?	
8. State Capital of your firm.	
Details of Income tax, Sales tax, registration etc.	
 Number of years of actual work carried out in Pakistan. 	
11. Attach attested copy of certificate of past work of the same nature carried out as that in tender.	
12. Electrical Contractor license No. and date.	SIGNATURE OF TENDERER
	Signed by Mr
Date:	For and on behalf of
Place:	

KARACHI PORT TRUST MECH & ELECT ENGG. DEPARTMENT-II

PROFORMA – "B"

<u>S.NO</u>	P A R T I C U L A R S	DETAILS
1.	In case of "SOLE PROPERIETOR SHIP" concern. a. Full Name of the Proprietor. b. Business address and Phone No. if any. c. Residential address and Phone No. if any. d. Certified copy of certificate of registration with Registrar of Firms to be attached.	
2.	In case of "PARTNERSHIP" Concern: a. Name of the Partners with their business/ residential address and Phone No. if any. b. Partnership Deed & Certificate of Registration (Certified copies to be attached)	
3.	In case of "PRIVATE LIMITED COMPANY". a. Name of all Directors with their Business/Residential address and Phone No., if any. b. Memorandum & Articles of Association of the Company and Certificate of in corporation. (Certified copies to be attached.)	
4.	In case of "PUBLIC LTD., COMPANY". Memorandum & Articles of Association and (Certified copies to be attached).	
5.	In case firm is to be represented by "ATTORNEY". a. Legal Status and full particulars of the Attorney. b. Period of validity of Power of Attorney (Certified copies of Special or General Power of Attorney duly executed on Stamp Paper of proper value and authenticated/attested by a competent Authority to be attached.	
6.	G.I.R. No: Income Tax and amount of Income paid during the last assessment year(state year of Assessment)	
7.	A Certificate from the Bankers, sealed and addressed to the KPT showing the financial position of the Institution tendering, should be enclosed.	

SIGNATURE AND SEAL OF THE TENDERER
SIGNED BY MR
EOD 9 ON BEHALE OF

SCOPE OF WORK MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

S.No	Description	Qty
1	Water Tight Door:	04 Nos.
	04 Nos. water tight door's rubber to be replaced, rubber channel to be repaired as per requirement, door hanges to be checked, repaired and replaced as per requirement.	
2	Gantries:	
	06 Nos. gantries to be checked & necessary repairs to be carried out and made to be operational.	06 Nos.
	Any steel work required to be carried out.	
	25 Nos. Port & Stbd side gantrie's grease holes to be cleared and nipple to be renewed.	25 Nos.
	06 Nos. hydraulic blocks to be serviced defective parts to be replaced and made operational.	06 Nos.
	14 Nos. Port and Stbd gantrie's sheaves to be checked repaired / replaced as per requirement and made operational.	14 Nos.
	14 Nos. Port and Stbd gantrie's bushes and pins to be checked, repaired / replaced as per requirement.	14 Nos.
3.	Swell Compensators:	02 Nos.
	Both swell compensators {Port & Stbd} to be dismantled, checked, repaired, replaced as per following and defective parts replace as per required:	
	Hydraulic Rams shall go under treatment like grinding / chrome plating / re-grinding & polishing to acquire the original size if required otherwise new hydraulic rams will be arranged.	
	Sets of hydraulic seals, oil ring etc to be renewed.	
	Both swell compensators to be re-assembled.	
	Both swell compensator to be re-installed onboard the vessel.	
	Any in way repair / steel work required to be carried out.	
	Test & trails to be conducted.	
	Transportation & lifting of swell compensator from KPT to workshop and vise-versa will be done by contractor.	
	All tools and spare parts to be arranged by contractor.	
4	Funnel Flap:	02 Nos.
	02 Nos. engine room funnel flaps need to be checked repaired / replaced and made operational as per requirement.	

5	Electric Motors:	17 Nos.
	The following AC / DC motor to be overhauled as per following scope of work:	
	a. 04 Nos. Gland pump motors 7.5 KW.	
	b. 02 Nos. Flushing pump motors 11 KW.	
	c. 01 No. Firefighting pump motors 18 KW.	
	d. 02 Nos. General Service pump motors 18 KW.	
	e. 02 Nos. Hydraulic Pump motor 7.5 KW.	
	f. 01 No. Hydraulic Pump motor 18.5 KW.	
	g. 02 Nos. Hydraulic Pump motor 110 KW.	
	h. 02 Nos. Bow thruster motor 525 KW.	
	i. 01 No. Caspian motor 18 KW.	
	Scope of Work:	
	Remove the motor from housing on mounting, take a part the motor components including the stator, rotor, bearing and winding.	
	Thoroughly cleaned a motor component, removing dint, grime and old lubricant.	
	Visually inspection the components for damage, wear on corrosion, check the any signs of overhauling, electrical arcing on other damage.	
	Repair and replace the damage parts such as, bearing, windings, stator on motor coxes, commutates on slip rings, replace any damage parts.	
	Re-assemble component in the correct order.	
	Testing, perform electrical and mechanical test to ensure the motor is functioning properly.	
	Apply a new coat of paint on varnish to protect the motor from corrosion.	
	Motor to be re-installed with following:	
	Checking and adjusting the motor's alignment and balance.	
	Motor nut & bolts, seal gasket if any to be check.	
	Motor switch and stator to be checked.	
	o Performing a dynamic balance of the motor etc.	
6	Lightening Transformer:	02 Nos.
	02 Nos. lightening transformer 55 KVA to be serviced insulation to be improved.	
7	Blowers:	07 Nos.
	04 Nos. Engine room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.	
	01 No. Steering room compartment blower with all mechanical assemblies to be checked repaired as per requirement and made operational.	
	01 No. Technical space blower with all mechanical assemblies to be checked repaired as per requirement and made operational.	
	01 No. Bow thruster room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.	
8	Drag Head:	02 Nos.
	Both Port and Stbd existing California drag head's parts to be inspected thoroughly and rectify the were damage and leakage etc.	
	Any steel work included top bottom plate to be renewed as per existing drawing, material, plate thickness etc.	
	b. All heel pad to be renewed.	
	c. Visor to be renewed.	
	d. Jet pump's nozzle to be renewed.	
	e. Drag head to be made operational any in way repair steel work to be carried out if required.	

9	Suction Tube:	01 Job
	Port & Stbd suction tube including single/ double articulations and turning gland to be dismantled completely (till Drag Head) and place it on berth.	
	Dismantled all the associated parts & UT will be performed.	
	All the Weak Pipes, Plate & Profiles to be Change as per UT report.	
	All Pins & Bushes to be replaced with new one.	
	All Flexible Hose Pipes of Dredge Pipeline & Jet Water Pipeline to be replaced with New One.	
	All Cable Tray will be renewed.	
	All Sensors to be serviced and properly joint its cable in Sea Water Proof Terminal box.	
	Chest, Chest Seal, Cooler, Single / Double Articulations and Trunnions, Trunnions gland, elbow suction pipe, suction tube cable tray to be checked with all pin bushes, Sheaves etc. Repair / Replaced as per requirement.	
10	Gangway:	01 Job
	Both Port & Stbd ladder/ gangway to be dismantled.	
	All moving parts, sheaves, pins bushes to be checked.	
	Repair/ Replacement as per requirement.	
	Steel wire to be replaced as per existing.	
	Lowering mechanism to be checked and repair / replaced defective parts as per requirement.	
	Upper and lower platform supporting hanges to be checked repair / replaced	
11	Jet Pump Valve:	10 Nos.
	10 Nos. both Jet Pump, suction and discharge, butterfly valves to be checked, overhauled and made operational. Shaft seal, valve seals, sensors etc. to be replaced. Shaft to be buildup if required.	
12	Shaft Generator:	02 Nos.
	02 Nos. both shaft generator service / insulation/ varnished to be carried out and also insulation test to be carried out	
13	Gate Valve:	02 Nos.
	The following 10 Nos. (700mm) and 02 Nos. (500mm) dredge pump's suction discharge line gate valve to be check and repaired as per following scope of work:	
	Valve to be removed from line.	
	Valve seals to be renewed.	
	Valve gate to be checked, repaired and replaced as per requirement.	
	Valve gland to be checked, repaired and replaced as per requirement.	
	Valve shaft to be checked, rebuild as per requirement.	
	Valve body / casing to be checked, repaired and replaced as per requirement.	
	Upon assembling of valve pressure test on 10 bar to be carried out.	
	Valve to be refitted with new nut bolts, gasket etc.	
	Gate valve actuator cylinder to be alignment with sensor.	
14	Pumps:	08 Nos.
	The following pump to be overhauled as per following scope of work:	
	 04 Nos. Gland Pumps. 02 Nos. General Service (GS) Pump. 02 Nos. Flushing. Scope of Work: 	
	Pump to be taken out from foundation.	
	Pump components i.e. Impeller, impeller suction & discharge wear ring, shaft, shaft bearing, shaft seal, pump casing etc. to be dismantled for leakage, corrosion and worn out.	
	All dismantled components to be degreased, cleaned, calibrated, repaired and replaced as per	
	requirement.	

15	Painting of Superstructure:	01 Job
	The following area to be grit blast / hydro blast / chipping, scrapping and surface to be achieved SA2.5 as per IP paint inspector to be carried out:	
	Superstructure, winches, swell compensator, decks and hopper area. (approx area 8000 sq. meter) 04 coats to be applied as per International Paint Scheme.	Paint to be provided by KPT
16	Dredge Pipe line:	
	Complete straight dredge pipe line dia 700mm included bend and branches to be safely removed	
	UT to be carried out.	
	Repairing of the damaged pipes bends & branches as per UT report and all straight pipe line to be turned down and then re-install the complete pipeline with new rubber packing, nut and bolts.	
	50 meter pipe line (dia 700mm) GS30Mn5 A-Grade ship Quality / S275JR, 14mm thickness to be quoted (unit cost to be quoted).	50 meter
	10 Nos. bend (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted)	10 Nos.
	07 Nos. branch (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted).	07 Nos.

TERMS AND CONDITIONS:

- 1. Tools, lifting equipment, welding machine, welding electrode, gas cutting equipment and gas cylinder is firm's responsibility during the aforementioned repair work.
- 2. Transportations from Craft to work place, to Craft are firm's responsibility.
- 3. Safety and safety equipments are firm's responsibility during repair.
- 4. Any unforeseen work during repair is firm responsibility.
- 5. Upon completion of repair work the satisfactory test trial in the presence of ship Engineer / staff is firm responsibility.

MECHANICAL ENGINER (WS)

DY. CHIEF MECH ENGINEER (WS)

KARACHI PORT TRUST MECH & ELECT ENGG. DEPARTMENT-II B.O.Q

MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

S.No	Description	Qty	Material Price in Rs.	Labour Price in Rs.
1	Water Tight Door:	04 Nos.	XXXXXXX	XXXXXXX
·	04 Nos. water tight door's rubber to be replaced, rubber channel to be repaired as per requirement, door hanges to be checked, repaired and replaced as per requirement.	011100.	7000000	7000000
2	Gantries:			
	06 Nos. gantries to be checked & necessary repairs to be carried out and made to be operational.	06 Nos.	xxxxxx	xxxxxxx
	Any steel work required to be carried out.			
	25 Nos. Port & Stbd side gantrie's grease holes to be cleared and nipple to be renewed.	25 Nos.		
	06 Nos. hydraulic blocks to be serviced defective parts to be replaced and made operational.	06 Nos.		
	14 Nos. Port and Stbd gantrie's sheaves to be checked repaired / replaced as per requirement and made operational.	14 Nos.		
	14 Nos. Port and Stbd gantrie's bushes and pins to be checked, repaired / replaced as per requirement.	14 Nos.		
3.	Swell Compensators:	02 Nos.	xxxxxxx	xxxxxxx
	Both swell compensators {Port & Stbd} to be dismantled, checked, repaired, replaced as per following and defective parts replace as per required:			
	Hydraulic Rams shall go under treatment like grinding / chrome plating / re-grinding & polishing to acquire the original size if required otherwise new hydraulic rams will be arranged.			
	Sets of hydraulic seals, oil ring etc to be renewed.			
	Both swell compensators to be re-assembled.			
	Both swell compensator to be re-installed onboard the vessel.			
	Any in way repair / steel work required to be carried out.			
	Test & trails to be conducted.			
	Transportation & lifting of swell compensator from KPT to workshop and vise-versa will be done by contractor.			
	All tools and spare parts to be arranged by contractor.			
4	Funnel Flap:	02 Nos.	xxxxxx	xxxxxxx
	02 Nos. engine room funnel flaps need to be checked repaired / replaced and made operational as per requirement.			
	Electric Motors:	17 Nos.	xxxxxx	xxxxxxx
	The following AC / DC motor to be overhauled as per following scope of work:			
	a. 04 Nos. Gland pump motors 7.5 KW.			
	b. 02 Nos. Flushing pump motors 11 KW.			
	c. 01 No. Firefighting pump motors 18 KW.			
	d. 02 Nos. General Service pump motors 18 KW.			
	e. 02 Nos. Hydraulic Pump motor 7.5 KW.			
	f. 01 No. Hydraulic Pump motor 18.5 KW.			
	g. 02 Nos. Hydraulic Pump motor 110 KW.			
	h. 02 Nos. Bow thruster motor 525 KW.			
	i. 01 No. Caspian motor 18 KW.			
	Scope of Work:			
	Remove the motor from housing on mounting, take a part the motor components including the stator, rotor, bearing and winding.			

	Thoroughly cleaned a motor component, removing dint, grime and old lubricant.			
	Visually inspection the components for damage, wear on corrosion, check the any signs of overhauling, electrical arcing on other damage.			
	Repair and replace the damage parts such as, bearing, windings, stator on motor coxes, commutates on slip rings, replace any damage parts.			
	Re-assemble component in the correct order.			
	Testing, perform electrical and mechanical test to ensure the motor is functioning properly.			
	Apply a new coat of paint on varnish to protect the motor from corrosion.			
	Motor to be re-installed with following:			
	 Checking and adjusting the motor's alignment and balance. 			
	 Motor nut & bolts, seal gasket if any to be check. 			
	Motor switch and stator to be checked.			
	 Performing a dynamic balance of the motor etc. 			
6	Lightening Transformer:	02 Nos.	xxxxxxx	xxxxxxx
	02 Nos. lightening transformer 55 KVA to be serviced insulation to be improved.			
7	Blowers:	07 Nos.	xxxxxxx	xxxxxxx
	04 Nos. Engine room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.			
	No. Steering room compartment blower with all mechanical assemblies to be checked repaired as per requirement and made operational.			
	01 No. Technical space blower with all mechanical assemblies to be checked repaired as per requirement and made operational.			
	01 No. Bow thruster room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.			
8	Drag Head:	02 Nos.	xxxxxx	xxxxxxx
	Both Port and Stbd existing California drag head's parts to be inspected thoroughly and rectify the were damage and leakage etc.			
	Any steel work included top bottom plate to be renewed as per existing drawing, material, plate thickness etc.			
	b. All heel pad to be renewed.			
	c. Visor to be renewed.			
	d. Jet pump's nozzle to be renewed.			
	Drag head to be made operational any in way repair steel work to be carried out if required.			
9	Suction Tube:	01 Job	xxxxxxx	xxxxxx
	Port & Stbd suction tube including single/ double articulations and turning gland to be dismantled completely (till Drag Head) and place it on berth.			
	 Dismantled all the associated parts & UT will be performed. All the Weak Pipes, Plate & Profiles to be Change as per UT 			
	report. • All Pins & Bushes to be replaced with new one. • All Flovible Hase Pines of Dredge Pineline & Let Water Pineline to			
	All Flexible Hose Pipes of Dredge Pipeline & Jet Water Pipeline to be replaced with New One.			
	All Cable Tray will be renewed.			
	All Sensors to be serviced and properly joint its cable in Sea			
	Water Proof Terminal box. • Chest, Chest Seal, Cooler, Single / Double Articulations and			
	Trunnions, Trunnions gland, elbow suction pipe, suction tube			
	cable tray to be checked with all pin bushes, Sheaves etc. Repair /			
	Replaced as per requirement.			

- 40		04.1.1	1	
10	Gangway:	01 Job	XXXXXXX	XXXXXXX
	Both Port & Stbd ladder/ gangway to be dismantled.			
	All moving parts, sheaves, pins bushes to be checked.			
	Repair/ Replacement as per requirement.			
	Steel wire to be replaced as per existing.			
	Lowering mechanism to be checked and repair / replaced defective parts as per requirement.			
	Upper and lower platform supporting hanges to be checked repair / replaced			
11	Jet Pump Valve:	10 Nos.	xxxxxxx	xxxxxxx
	10 Nos. both Jet Pump, suction and discharge, butterfly valves to be checked, overhauled and made operational. Shaft seal, valve seals, sensors etc. to be replaced. Shaft to be buildup if required.			
12	Shaft Generator:	02 Nos.	xxxxxxx	xxxxxxx
	02 Nos. both shaft generator service / insulation/ varnished to be carried out and also insulation test to be carried out			
13	Gate Valve:	02 Nos.	xxxxxxx	xxxxxxx
	The following 10 Nos. (700mm) and 02 Nos. (500mm) dredge pump's suction discharge line gate valve to be check and repaired as per following scope of work:			
	Valve to be removed from line.			
	Valve seals to be renewed.			
	Valve gate to be checked, repaired and replaced as per requirement.			
	Valve gland to be checked, repaired and replaced as per requirement.			
	Valve shaft to be checked, rebuild as per requirement.			
	Valve body / casing to be checked, repaired and replaced as per requirement.			
	Upon assembling of valve pressure test on 10 bar to be carried out.			
	Valve to be refitted with new nut bolts, gasket etc.			
	Gate valve actuator cylinder to be alignment with sensor.			
14	Pumps:	08 Nos.	XXXXXXX	XXXXXXX
	The following pump to be overhauled as per following scope of work:			
	04 Nos. Gland Pumps.			
	02 Nos. General Service (GS) Pump.			
	02 Nos. Flushing.			
	Scope of Work:			
	Pump to be taken out from foundation.			
	Pump components i.e. Impeller, impeller suction & discharge wear ring, shaft, shaft bearing, shaft seal, pump casing etc. to be dismantled for leakage, corrosion and worn out.			
	All dismantled components to be degreased, cleaned, calibrated,			
	repaired and replaced as per requirement. • Pump to be re-assembled, aligned and made to be operational:			
15	Painting of Superstructure: The following area to be grit blast / hydro blast / chipping, scrapping and surface to be achieved SA2.5 as per IP paint inspector to be carried out:	01 Job	xxxxxxx	xxxxxx
	Superstructure, winches, swell compensator, decks and hopper area. (approx area 8000 sq. meter) 04 coats to be applied as per International Paint Scheme.	Paint to be provided by KPT		

16	 Dredge Pipe line: Complete straight dredge pipe line dia 700mm included bend and branches to be safely removed UT to be carried out. Repairing of the damaged pipes bends & branches as per UT report and all straight pipe line to be turned down and then reinstall the complete pipeline with new rubber packing, nut and bolts. 50 meter pipe line (dia 700mm) GS30Mn5 A-Grade ship Quality / S275JR, 14mm thickness to be quoted (unit cost to be quoted). 10 Nos. bend (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted) 07 Nos. branch (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit 	50 meter 10 Nos. 07 Nos.	xxxxxxx	xxxxxx
	cost to be quoted).	pplicable) Tota	Motorial Cost	yaaaaay
	(vviiere a			XXXXXXX
		18% GS	T on item No 9	XXXXXXX
	(Wher	e applicable) T	otal labor cost	XXXXXXX
	15% SST	on item No 1 to	8 and 10 to 16	XXXXXXX
	Gra	and Total Includ	ing GST & SST	XXXXXXX
	AND CONDITIONS:			
 Tools, lifting equipment, welding machine, welding electrode, gas cutting equipment and gas cylinder is firm's responsibility during the aforementioned repair work. Transportations from Craft to work place, to Craft are firm's responsibility. Safety and safety equipments are firm's responsibility during repair. Any unforeseen work during repair is firm responsibility. Upon completion of repair work the satisfactory test trial in the presence of ship Engineer / staff is firm responsibility. MANDATORY REQUIREMENT 				
<u>WAND</u>	AIUKI KEQUIKEMENI			

. Validity Period: 90 Days w.e.f. the date of tender opening and further extension if required may be ranted on request.
. Delivery / Completion Period:
. Terms of Payment: 100% payment against completion of subject work after satisfactorily test & trials will be conducted in the presence of KPT Engineer.
. Guarantee: 12 Months Guarantee w.e.f. date of completion and satisfactory test / trials of subject work.
ATED

AME & ADDRESS OF TENDERER: SIGNATURE OF TENDERER

KARACHI PORT TRUST

(MECH. & ELECT. ENGINEERING DEPARTMENT)



GENERAL CONDITIONS OF CONTRACT

The General Conditions of Contract have been approved by the Board of Trustees of Karachi Port Trust Under their Resolution No.21, dated 9th April, 1958 for adoptions of works.

TABLE OF CONTENTS

		PAGE
I.	Table of contents	iv-v
l .	General Conditions of Contract	1-13
II.	Form of Agreement	14

GENERAL CONDITIONS OF CONTRACT TABLE OF CONTENTS

\sim	۱.,	
١.	ıaı	150

		DEFINITION & INTE	RPRETATION	Pag
1.	(1)	Definition		1
	(2)	Singular and Plural		1
	(3)	Marginal Headings or Notice		1
		REPRESEN	TATIVE OF THE ENGINEER	
2.	Duti	es and Power of Representative of th		1
		•	ENT AND SUB-LETTING	-
2	A a a i			2
3.	ASSI	· ·		2
			ENT OF CONTRACT	
4.	Exte	ent of Contract		2
		CONT	RACT DOCUMENTS	
5.	Doc	uments Manually Explanatory		
6.	(a)	Drawings		2
	(b)		Site	2
7.	Furt	her Drawing and instruction		2
		GENE	RAL OBLIGATIONS	
8.		Contract agreement		2
9.	(a)	Security Deposit		3
	(b)	Contractor's Failure to Furnish Sec	urity Deposit	3
10.		Inspection of Site		3
11.		Sufficiency of Tender		3
12.		Work to be to Satisfaction of Engine	er	3
13.		Programme to be Furnished		3
14.		Contractor's Superintendence		3
15.		Contractor's Employees		4
16.		Setting out		4
17				4
18.	(1)	Care of works		4
	(2)			4
19.				5
20.				5
21.	(a)		ees	5
	(b)		on etc	5
22.				5
23.				5
24.				5
25.			our	5
26.		Clearance of Site on Completion		5
			LABOUR	
27.			of Wages	6
28.				6
			NATERIAL AND PLANT	
29.	(1)	Quality of Material and Workman Sh		6
		tests		
	(2)	•		6
	(3)			6
30.				6
31.			g up	6
32.	(1)		terials	6
	(2)	•	······	6
33.		Suspension of work		6

COMMENCEMENT TIME AND DELAYS

34.		Commencement of Works	7
35.	(1)	Possession of Site	7
	(2)	Way leaves, etc.	7
36.		Time for completion	7
37.		Extension of Time for completion	7
38.	(1)	Rate of Progress	7
	(2)	Termination of Contract for slow Progress	8
39.		Liquidated Damages for delay	8
40.		Certificate of Completion of Works	8
		MAINTENANCE AND DEFECTS	
41.	(1)	Definition of Period of Maintenance	8
	(2)	Execution of works of Repairs. etc	8
	(3)		9
	(4)	• ,	9
	` ,	ALTERATION ADDITIONS AND OMISSION	
42.	(1)		9
	(2)		9
43.	(1)	<u> </u>	9
	(2)		9
	` '	PROPERTY IN MATERIALS AND PLANTS	
44.	(1)		9
	(2)		9
	(3)	•	0
45.	(-)	5 , ,	0
		MEASUREMENT	
46.			0
47.		Works to be Measured	
48.		Method of Measurement	
		PROVISIONAL SUMS	
49.		Use of Provisional and Contingency Items 1	0
5 0.		Items not Mounted out	
50.		CERTIFICATE AND PAYMENT	٠
51.	(1)	Bills for on – account Payment 1	^
51.	` '	•	0
	(2)		0
	(3)	·	0
52.	(4)		1
52. 53.		Approval only by Maintenance Certificate	
53. 54.			1
		·	1
55.		•	•
	(4)	REMEDIES AND POWERS	
56.	(1)	Forfeiture	
	(2)		2
	(3)	•	2
57.		· ·	2
58.		•	2
		SETTLEMENT OF DISPUTES	
59.		G	2
60.		Arbitration 1	3

General Conditions of Contract DEFINITIONS AND INTERPRETATION

- 1.(1) In the Contract (as hereinafter defined) the following words and expression shall have the meanings hereby assigned to them except where the context otherwise requires:-
 - (a) "Board" means the Board of Trusties of the Port of Karachi, Pakistan, and includes the Board's representatives of successors.
 - (b) "Contractors" means the person or person firms or company whose Tender (as hereinafter defined) has been accepted by the Board and includes the Contractor's personal representative successors and permitted assigns.
 - (c) "Engineer" means the Chief Mechanical and Electrical Engineer of the Karachi Port Trust or other Engineer appointed from time to time by the Board.
 - (d) "Representative of the Engineer" means any Engineer Assistant Engineer and any other duly authorized Agents of Agents appointed from time to time by the Board of the Engineer to perform the duties set forth in Clause-2 hereof.
 - (e) "Works" means the works to be executed in accordance with the Contract.
 - (f) "Contracts" means the conditions of Contract, Specification, Drawings, priced Bill of Quantities, Schedule of Rates and prices (if any), Tender and the Contract Agreement.
 - (g) "Contract Price" means the sum named in the Tender subject to such additions there to or deductions there from as may be made under the provisions hereinafter contained.
 - (h) "Constructional Plant" means all appliances things of whatsoever nature required in or about the execution completion or maintenance of the works or Temporary works (as hereinafter defined) but does not include materials or other things, intended to from or forming part of the permanent work.
 - (i) "**Temporary works**" means all temporary works if every kind required in or about the execution completion or maintenance of the works.
 - (j) "Drawing" means the drawing referred to in the specification and any modifications of such drawings approved in writing by the Engineer and such other drawing as may from time to time be furnished or approved in writing by the Engineer.
 - (k) "Site" the lands and other places on, under in or through which the works are to be executed or carried out and any other lands or places provided by the Board for the purpose of the Contract.
 - (I) "Approved" means approved in writing including subsequent written confirmation of previous verbal approval and "approval" means approved in writing including as aforesaid.
 - (m) "**Tender**" means the offer tendered by the Contractor for the works governed by the Contract.
- (2) Words importing the singular only also include the Plural and vice versa where the contents requires.
- (3) The marginal headings or note in these General Condition shall not be deemed to be part thereof or be taken into consideration in the interoperation or construction thereof or of the Contract.

Singular and Plural

Marginal Headings or Notes

REPRESENTATIVES OF THE ENGINEER

Duties and Power 2. of Representative of the Engineer.

2. The duties of the Representative of the Engineer are to watch and supervise the works and to test and examine any material to be used or workmanship employed in connection with the works. He shall have no authority to relieve the Contractor of any of his duties or obligations under the Contract nor except as expressly provided hereunder or else where in the Contract, to order any work involving delay or any extra payment by the Board nor to make any variation of or in the Works.

The Engineer may from time to time in writing delegate to the Representative of the Engineer any of the powers and authorities vested in the Engineer and shall furnish to the Contractor, a copy of all such written delegation of powers and authorities. Any written instructions or approval given by the Representative of the Engineer to the Contractor within the terms of such delegation (but not otherwise) shall bind the Contractor and the Board though it had been given by the Engineer, provided always as follows:-

- (a) Failure of the Representative of the Engineer to disapprove any work of material shall not prejudice the power of the Engineer there after to disapprove such work or materials and to order the puling down removal or breaking up thereof.
- (b) If the Contractor shall be dissatisfied by reason of any decision of the Representative of the Engineer he shall be entitled to refer the matter to the Engineer who shall there upon confirm reverse or vary such decision.

ASSIGNMENT AND SUB-LETTING

Assignment and sub-letting

3. The Contractor shall not assign or Sub-let the Contract or any part thereof or any benefit or interest or interest therein or there under without the written consent of the Board.

EXTENT OF CONTRACT

N Extent Of Contracts

4. The Contract comprises the construction, completion and maintenance of the works and except in so far as the Contract otherwise provides provision of all labour materials. Constructional Plant. Temporary works as every thing whether of temporary or permanent nature required in and for such construction completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

CONTRACT DOCUMENTS

Documents manually Explanatory

5. The several documents forming the Contract are to be taken as mutually explanatory of one another and in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer whose decision in this respect shall be final.

Drawings

6. **Three (3) copies** of the approved drawings shall be furnished to the Contractor free of cost. The Contractor shall provide and make at his own expense any further copies required by him. At the completion of the Contract the Contractor shall return to the Engineer all drawings provided under the Contract.

One Copy of Drawings to be kept on Site One copy of drawings furnished to the Contractor as aforesaid shall be kept by the Contractor on the Site and the same shall at all reasonable time be available for inspection and use by the Engineer and the representative of the Engineer.

Further Drawings and Instructions

7. The Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the works and the Contractor shall carry out and bound by the same.

GENERAL OBLIGATIONS

Contract Agreement 8. The Contractor shall within **Fourteen (14) days** after written notice of acceptance of the

Tender has been posted to the Contractor enter into and execute a Contract agreement, (to be prepared at the cost of the Contractor) in the form annexed, with such modifications as may be necessary.

9. Unless otherwise agreed between the Board and the Contractor the Contractor shall within Fourteen(14) days after written notice of acceptance of the Tender has been posted to the Contractor and before the Contract agreement is entered into and executed, furnish to the Board a security for the due fulfillment of the Contract in cash with the Chief Accounts Officer Karachi Port Trust or the equivalent in approved Public Rupee Securities or Approved Banker's Guaranteed Bond valid till the successful completion of Contract endorsed in the favor of the chief Accounts officer Karachi Port Trust amounting to a sum equal to Five percent 5% of the Contract price. If the Security deposit as aforesaid is made in cash it shall be optional with the Contractor to make the full deposit before entering into and executing the agreement or to deposit Fifty percent 50% of the amount due at the time and the balance to be made up by deduction of Five percent 5 % of the amount payable to the Contractor in each on – account bill or certificate.

Security Deposit

In the event of the Contractor failing to execute a formal Contract or to make a Security Deposit therefore in the manner aforesaid and in the period specified, the Board is entitled appropriate any earnest money or initial deposit made by the Contractor with his Tender without prejudice to their right to claim any further loss or damage which may result to them by reason of the aforesaid defaults of the Contractor as if a Contract is actually executed for purpose of such claim.

Contractor's Failure to Furnish Security Deposit

10. The Contractor shall inspect and examine the Site and its surroundings and shall satisfy himself before submitting the Tender as to the nature of ground and sub - soil, the from and nature of the Site the quantities and nature of the work and materials necessary for the completion of the works and the means of access to the Site of the accommodation he may requires and in general shall himself obtain all necessary information as to risk contingencies and other circumstances which may influence or affect his Tender.

Inspection of Site

11. The Contractor shall be deemed to have satisfied himself before tendering as to correctness and sufficiency of his Tender for the Works and of the rates and prices staged in the priced Bill of quantities and the Schedule of rates (if any) which rates and prices shall except in so far otherwise provided in the Contract cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.

Sufficiency of Tender

12. The Contractor shall execute, complete and maintain the works in strict accordance with the Contract to the satisfaction of the Engineer and shall comply with the adhere strictly to the Engineer's Instruction and directions on any matter (whether mentioned in the Contract or not) touching or connecting the work. The Contractor shall take instruction and direction only from the Engineer or (subject to the Limitations referred to in **Clause 2** hereof) from the Representative of the Engineer.

Work to be to Satisfaction of Engineer.

13. As soon as practicable after the acceptance of his Tender the Contractor shall if required submit to the Engineer for his approval a Programme showing the order of procedure and method in which he proposes to carry out the Works and shall whenever required by the Engineer or Representative of the Engineer furnish for his information particulars in writing of the Contractor's arrangements for the carrying out of the Works and of the Constructional Plant and Temporary Works which the Contractor intents to supply use or construct as the case the case may be. The submission to and approval by the Engineer or the Representative of the Engineer of such Programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

Programme to be furnished

14. The Contractor shall give or provide all necessary Superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor obligations under the Contract the Contractor or a competent and authorized agent or representative approved of in writing by the Engineer (which approval may at any time be withdrawn) is to be constantly on the Works and shall give his whole time to the Superintendence of the same. If such approval shall be withdrawn by the Engineer, the Contractor shall as soon as is practicable (having regard to the requirements of replacing him as hereafter mentioned) after receiving written notice of

Contractor's Superintendence

such withdrawal removes the agent from the Site and shall not thereafter employ him again on the Site in any capacity and shall replace him by another agent approved by the Engineer. Such authorized agent representative shall receive on behalf of the Contractor and directions instructions from the Engineer or (subject to the Limitations of Clause 2 hereof) Representative of the Engineer.

Contractor's Employees

- 15. (1) The Contractor shall provide and employ on the Site in connection with the execution and maintenance of the works:-
 - (a) Only such technical assistants are as skilled and experienced in their respective callings and such sub-agents foremen and leading hands as are competent to give proper supervision to the work they are required to supervise.
 - (b) Such skilled semi- skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the Works.
- (2) The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the work any person employed by the Contractor in or about the execution or maintenance of the Work who in the option of the Engineer misconducts himself or is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the Engineer to be undesirable and such person shall not be again employed upon the works without the written permission of the Engineer. Any person so removed from the Works shall be replaced without delay be a competent substitute approve by the Engineer.
- (3) The Contractor shall if required by the Engineer deliver to the Engineer or the Representative of the Engineer returns in such form and at such intervals as the Engineer may prescribe showing in detail the supervisory staff and the number of the several classes of labour from time to time employed by the Contractor on the Site.

Setting Out

16. The Contractor shall be responsible for the true and proper setting out of the work and for the correctness of the position levels dimensions and alignment of all part of the Works and for the provision of all necessary instruments appliance and labour in connection therewith. If at any time during the progress of the Works any error shall appear or arise in the position levels dimensions or alignments of any part of the works, the Contractor on being required to do so by the Engineer or the Representative of the Engineer shall at his own expense rectify such error to the satisfaction of the Engineer or the Representative of the Engineer. The checking of any setting out of any line or level by the Engineer or the Representative of the Engineer shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all bench-marks, Site- rails pegs and other things used in setting out the Works.

Watching and Lighting

- **Care of Works**
- 17. The Contractor shall in connection with the Works provide and maintain at his own cost all lights, guards fencing and watching when and where necessary or required by the Engineer or the Representative of the Engineer or by and duly constituted authority for the protection of the Works or for the safety and convenience of the public or others.
- 18. (a) From the commencement to the completion of the Works the Contractor shall take full responsibility for the care thereof and of all Temporary works and in case any damage loss or injury shall happen to the work or to any part thereof or to any Temporary Works form any cause whatsoever (save and except the excepted risks as defined in **sub-Clause** (2) of this **Clause**) shall at his own cost repair and make good the same so that at completion the works shall be in good order and condition and in conformity in every respect with the requirements of the Contract and the Engineer's instructions. The Contractor shall also be liable for any damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under **Clause 4** hereof.

Expected Risks

(b) The "expected risks" are war, hostilities(whether war be declared or not) Invasion, act of foreign enemies , rebellion, revolution, Insurrection or military usurped power, civil war or (otherwise than among the Contractor 's own Employees) riot, commotion or disorders or the use or occupation by the Board of any portion of the Works

or disorders or the use or occupation by the Board of any portion of the Works in respect of which a Certificate of Completion has been issued or any such operation of the forces of nature as reasonable foresight and ability on the part of the Contractor could not foresee or reasonably provide against (all of which are herein collectively referred to as "the expected risks.)"

19. The Contractor shall (expect if and so far as the Specification Provides otherwise) indemnify and keep indemnified the Board against all losses and claims for injuries or damage to any persons or any property whatsoever (other than surface or other damage to land being or crops being on the Site suffered by tenants or occupiers) which may arise out of or in consequences of the construction and maintenance of the works and against all claims demands proceeding damage, costs charges and expenses whatsoever in respect of or in relation thereto.

20. The Board shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any Workman or other person in the employment of the Contractor or any sub-contactor and the Contractor shall indemnify and keep indemnified the Board against all such damages compensation and against claims demands proceeding costs charges and expenses whatsoever in respect thereof or in relation thereto.

21. Contractor shall give all notices and pay all fees required to be given or paid by any National or state statute Ordinance or other Law or any Regulation or By- law of any local or other duly constituted authority in relation to the execution of the Works or of any Temporary Works and by the rules and regulations of all public bodies and companies whose property or right are affected or may be affected in any way by the Works or any Temporary Works.

The Contractor shall confirm in all respects with the provisions of any such statue Ordinance or Law as aforesaid and the regulation or By-Law of any Local or other duly constituted authority which may be applicable to the Works or to any Temporary Works and with such rules and regulations of public bodies and companies as aforesaid and shall keep the Board indemnified against all penalties and liabilities of every kind for breach of any such statute Ordinance or Law regulation or By-law.

- 22. All fossils coins articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site of the Works shall as between the Board and the Contractor be deemed to be the absolute property of Board and the Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Representative of the Engineer of such discovery and carry out at the expense of the Board Representative of the Engineer's orders as to the disposal of the same.
- 23. The Contractor shall save harmless and indemnify the Board from and against all claim and proceedings for or on account of infringement of any patent rights design trade-mark or name or other protected rights in respect of any constructional Plant machine work or material used for or in connection with the Works or Temporary Works or any of them and from and against all claims demands proceedings damages costs charges and expense whatsoever in respect thereof or in relation there to except where otherwise specified the Contractor shall pay all tonnage and other royalties and other payments or compensation (if any) for getting stone, sand , gravel clay or other materials required for the Works or Temporary Works or any if them.
- 24. The Contractor shall in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other Contractor employed by the Board and their workmen and to the workmen of the Board and of any other duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contract of any Contractor which the Board may enter into in connection with or ancillary to the works.

25. Except where otherwise specified the Contractor shall at his own expense supply and provide all the Constructional plant. Temporary Works Materials both for temporary

Damage to Persons and Property

Accident or Injury to workman

Giving Of Notices and Payment Of Fees

Compliance with statue Regulations etc.

Fossils, etc.

Patent Rights and Royalties

Opportunities for other Contractor's

Supply of Plant Materials and Labour and for permanent works labour (Including the supervision thereof) transport to or from the Site and in and about the work and other things of every kind required for the construction completion and maintenance of the works.

Clearance of Site on Completion

26. On the completion of the work the Contractor shall clear away and remove from the Site all constructional plant surplus material rubbish and Temporary works of every kind and leave the whole of the Site and works clean and in a workman like condition to the satisfaction of the Engineer.

LABOUR

Hours of Employment and payment of Wages Return of Labour Etc.

- 27. The Hours of Employment Regulation and payment of Wages Act so far these are applicable to the Contractor's labour shall be adhered to by the Contractor.
- 28. The Contractor shall if required by the Engineer deliver to the Representative of the Engineer or at his office a return in detail in such from and at such Intervals as the Engineer may prescribe showing the number of the several classes of labor from time to time employed by the Contractor on the Site and such information respecting Constructional plant as the Representative of the Engineer may require.

WORK MATERIAL AND PLANT

Quality of Material and workmanship and Tests 29. (1) All Materials and workmanship shall be of the respective kinds described in the Contract and in accordance with the Engineer's Instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture of fabrication or on the Site or at all or any or such places. The Contractor shall provide such assistance Instruments, machines, labour and materials as are normally required for examining measuring and testing any work and the quality, weights or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the Engineer.

Cost of samples Cost of Test

- (2) All samples shall be supplied by the Contractor at his own cost.
- (3) The cost of making all tests specified in the Contract shall be borne by the Contractor.

Access to Site

30. The Engineer and any person authorized by him shall at all times have access to the works and to the Site and to all workshops and places where work is being prepared or whence materials, manufactured articles, or machinery are being obtained fro works, and the Contractor shall afford every facility for and every assistance in or obtaining the right to such access.

Examination of Work Before Covering Up

31. No work shall be covered up or put out of view without approval of the Engineer or the Representative of the Engineer and the Contractor shall afford full opportunity for the Engineer or the Representative of the Engineer to Examine and measure any work which is about to be covered up or put out of view and to examine foundation before permanent work is placed thereon. The Contractor shall give notice to the Representative of the Engineer whenever any such work or foundation is ready or about to be ready for examination.

Removal of Improper Work and materials

- 32. (1) The Engineer shall during the progress the works have power to order from time to time.
 - (a) The removal from the Site within such time or times as may be specified of any materials which in the opinion of the Engineer are not in accordance with the Contract.
 - (b) The substitution of proper and suitable materials and
 - (c) The removal and proper re-execution (not-with-standing any previous test there of or interim payment therefore) of any work which in respect of materials or workmanship is not In the opinion of the Engineer in accordance with the Contract.
 - (2) In case of default on the part of the Contractor in carrying out such order the Board shall be entitled to employ and pay other person to carry out the same and all expenses consequent thereon incidental thereto shall be borne by the Contractor and

Default of Contractor In compliance

shall be recoverable from him by the Board or may be deducted by the Board from any monies due or which may become due to the Contractor.

- 33. The Contractor shall on the written order of the Engineer suspend the progress of the Works or any part thereof for such time to times and such manner as the Engineer may consider necessary and shall during such suspension property protect and secure the Works so far as is necessary in the opinion of the Engineer. The Extra cost (if any) incurred by the Contractor in giving effect to the Engineer's Instructions under this **Clause** shall be born and paid by the Board unless suspension is:-
 - (a) Otherwise provided for in the Contract or
 - (b) Necessary for the proper execution of the Works or by reason of weather conditions affecting the safety or quality of the Work or by some default on the part of the Contractor or.
 - (c) Necessary for the safety of the Works or any part thereof. Provided that the Contractor shall not be entitled to the recover any such extra cost unless he give notice in writing of his intention of claim to the Engineer within 28 days of the Engineer's order. The Engineer shall settle and determine the extra payment to be made to the Contractor in the respect of such claim as the Engineer shall consider fair and reasonable.

Suspension of Works

COMMENCEMENT TIME AND DELAYS

34. The Contractor shall commence the Works on Site within the period named in the tender after the receipt by him on an order in writing to this effect from the Engineer and shall proceed with the same with the due expedition and without delay except as may be expressly, sectioned or ordered by the Engineer or be wholly beyond the Contractor's control.

Commencement of Works

35. (1) Save in so far as the Contractor may prescribe the extent of options of the Site of which the Contractor is to be given possession from time to time and the order in which such portions shall be made available to him and subject to any requirement in the Contract as to the order in which the Work shall be executed, The Engineer will with the written order to commence the Works, give to the Contractor possession of so much of he Site as may be required to enable the Contractor to commence and proceed with the construction of the Works in accordance with the program referred to in **Clause 13** hereof (if any) and otherwise in accordance with such reasonable proposals of the Contractor as he shall by notices in writing to the Engineer make and will from time to time as the Works proceed give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the construction of Works with due dispatch is accordance with said program or proposals (as the case may be).

Possession of Site

(2) The Contractor shall bear all expanses and charges for special or temporary way leaves required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional accommodation outside the Site required by him for the purpose of the Works. Way Leaves Etc.

36. Subject to any requirement in the specification as to completion of any portion of the Works before completion of the whole of the Work, the Work shell be completed within the time stated in the tender calculated from the last day of the period named in the tender as that within which the Works are to be commenced or such extended time as may be allowed under **Clause 37** hereof.

Time for Completion

37. Should the amount of extra or additional Work of any kind or other special circumstances of any kind whatsoever which may occur be such as fairly to entitled the Contractor to any extension of time for the completion of the Works the Engineer shall determine the amount of such extension provided that the Engineer is not bound to take into account any extra or additional Works or other special circumstances unless the Contractor has, within 28 days after such Works has been commenced or circumstances have arisen or as soon thereafter as is practicable delivered to the representative of the Engineer full and detailed particulars of any claim to extension of time to which may consider himself entitled in order to such claim may be investigated at the time.

Extension of Time for Completion

Rate of Progress 38. (1) The whole of the material plant and labour to be provided by the Contractor under **Clause- 4** hereof and mode manner and speed of execution maintenance of the Works are to be of a kind and conducted in a manner approved of by the Engineer. Should the rate of progress of the Works or any part thereof be at any time in the opinion of the Engineer to slow to ensure the completion of Works by the prescribe time or extended time for completion. The Engineer shall so notify the Contractor in writing and the Contractor shall thereupon take such step as the Contractor may think necessary and the Engineer may approved to expedite progress so as the complete the Works by the prescribed time or extended time for completion. If the Works is not being carried on by day and by night and the Contractor shall request permission to work by night as well as by day then if the Engineer shall grant such permission, the Contractor shall not be entitled to any additional payment for so doing.

Termination of Contract for slow progress

(2) Not-with-standing any thing contained hereto in the event of the rate of progress of the Works being such that in the opinion of the Engineer Works cannot be completed by the prescribed time or the extended time, the Engineer my have the Works constructed, completed through any other agency either concurrently with or independently of the Contractor at the risk and cost -of the Contractor or the Engineer may supplement the Contractor's labour plant equipment and materials at the Contractor' cost and risk and in all such cases provisions of Clause-39 hereof shall apply. Further the Board shall have the power to terminate the Contract and withhold payment to the Contractor till the whole of the Works have been constructed completed and maintained in the manner laid down in the Contract and the Contractor shall be liable for any loss or damage which the Board may sustain on the account and forfeiture the provision of Clause 56 and 57 here of shall apply.

Liquidated Damages for Delay 39. If the Contractor shall fail to complete the Works within the time prescribed by **Clause 36** hereof or extended time then Contractor shall pay to the Board a sum equal to **0.5%** of the total Contract value as liquidated damages for such default and not as a penalty for every week or part of week which shall elapse between the time prescribed by **Clause No. 36** hereof or extended time as the case may be and the date of completion of the Works, up to a maximum of **10%** of the total value of Contract of the Contract. The Board may without prejudice to any other method of recovery deduct the amount of such damages from any monies in the Board's hands due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his oblige ion to complete the work or form any other of his obligations and liabilities under the Contract nor it will prejudice the Board's right to recover the actual amount of damages, which the Board may suffer on account of delay in completion of the works. Furthermore, the fact that the Board has not deducted any amount of liquidated damages during the execution of works will not prejudice the Board's right either to deduct the same from the final bill or to recover the same through recourse to law.

Certificate of Completion of Works 40. As soon as in the opinion of the Engineer the Works shall have been substantially completed and shall have satisfactorily passed final test that may be prescribed by the Contract the Engineer shall on receiving a written undertaking by the Contractor to finish any outstanding Works during the Period of Maintenance issue a Certificate of Completion in respect of the Works, and the period of Maintenance of the Works shall commence from the date of such certificate. Provided that the Engineer may give such a certificate with respect to any part of Works before the completion of the Works and shall upon the written application of the Contractor give such certificate with respect to any substantial part of the Works which has been both completed to the satisfaction of the Engineer and occupied or used by the Board and when any such certificate is given in respect of a part of the Works such part shall be considered as completed and the period of Maintenance of such part shall commence from the date of such certificate. Provided also that a Certificate of Completion given accordance with the foregoing provisions of any part of the Works occupied and used as aforesaid shall not be deemed to certify completion of any ground of surfaces requiring reinstatement unless such certificate shall expressly so state.

MAINTENANCE AND DEFECTS

Definition of Period of Maintenance 41. (I) In these conditions the expression "period of Maintenance" shall mean the period of maintenance named in the Tender calculated from the date of completion of the Works certificate by the Engineer in accordance with **Clause 40** hereof or in the event of more then one certificate having been issued by the Engineer under the said **Clause** from the respective dates so certified and in relation to the period of Maintenance the expression **'the Works'** shall be construed accordingly.

Execution of Works of Repair, Etc.

(2) To the Intent that the Works shall at or as soon as practicable after the expiration of the period of Maintenance be delivered up to the Board in as good and perfect condition (fair wear and tear excepted) to the satisfaction of the Engineer as that in which they

Were at the commencement of the period of maintenance the Contractor shall execute all such Works for repair, amendment, reconstruction, reflection and making good of defects, imperfection, shrinkages or other fault as may be required of the Contractor in writing by the Engineer during the period of maintenance or with **Fourteen (14) days** after its expiration as a result of an inspection made by or on behalf of the Engineer.

(3) All such Work shall be carried out by the Contractor at his own expenses if the necessity thereof shall in the opinion of the Engineer be due to the use of materials of Workmanship not in accordance with the Contract or to neglect or failure on the part of the Contractor to comply with any obligation expressed or implied on the Contractor's part under the Contract. If in the opinion of the Engineer such necessity shall be due to any other cause the value of such Works shall be ascertained and paid for as if it were additional Works.

additional Works.

(4) If the Contractor shall fail to do any such Work aforesaid required by the Engineer the Board shall be entitled to carry out such Works by its own Workman or by other Contractor and if such Works is Work which the Contractor should have carried out at the Contractor's own cost shall be entitled to recover from the Contractor the cost thereof or may deduct the same from any monies due or that become due to the Contractor.

Cost of Execution works of Repair Etc.

Remedy on Contractor's Failure to carry out Works required

ALTERATION ADDITIONS AND OMISSIONS

1. (1) The Engineer shall make any variation of the quality of quantity of the Works or any part thereof that may in his opinion be necessary and for that purpose or if for any other reason it shall in his opinion be desirable

Variation

shall have power to order the Contractor to do and the Contractor shall do any of the following:-

- (a) Increase or decrease the quality of any Work included in the Contract
- (b) Omit any such Work
- (c) Chang the character or quality or kind of any such Work
- (d) Chang the levels, lines, position and dimensions of any part of the Works and
- (e) Execute additional Works of any kind necessary for the completion of the Works.

And no such variation shall in any way validate or invalidate the Contract, but the value (if any) of all such variation shall be taken into account in ascertaining the amount of the Contract price.

- (2) No such variation shall be made by the Contractor without an order in writing of the Engineer, provided that no order in writing shall be required for increase or decrease in the quantity of any Work where such increase or decrease is not the result of an order given under his **Clause** but is the result of the quantities exceeding or being less then those stated in the Bill of Quantities. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order and any confirmation in writing of such verbal order given by the Engine whether before or after the carrying out the order shall be deemed to be an order, in writing within the meaning of this **Clause**.
- 43. (1) The Engineer shall determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra or additional Works done or Work omitted by his order. All such Works shall valued at the rates set out in the Contract if in the opinion of the Engineer the same shall be applicable. If the Contract shall not contain any rates applicable to the extra or additional Work then reasonable prices shall be fixed by the Engineer.
- (2) Provided that if the nature or amount of any omission or addition relative to the nature or amount of the whole of the Contract Work or to any part thereof shall be such that in the opinion of the Engineer the rate or price contained in the Contract for any time of the work is by reason of such omission or addition rendered unreasonable or inapplicable the Engineer shall fix such other rates or price as in the circumstances he shall think reasonable and proper.

Order of variation to be in writing

Valuation of Variations

Power of Engineer to Fix Rates

PROPERTY IN MATERIALS AND PLANT

Plant Etc. the Property of the Board 44. (1) All constructional plant, Temporary Works and maternities provided by the Contractor shall when bought on to the Site immediately be deemed to become the property of the Board and the Contractor shall not removed the same or any part thereof without the consent in writing of the Engineer. But the Engineer will permit the Contract the exclusive use of all such constructional plant. Temporary Works and material in and for the completion of the Works until the happening of an event which gives right to the Board of exclude Contractor from the Site and proceed with the completion of the Works.

Revesting of Plant, Etc.

(2) Upon the removal of any such constructional plant, temporary Works or materials with consent as aforesaid the same shall be deemed to revest in and become the property of the Contractor and upon completion of the Works the reminder of the said constructional plant and temporary Works and any unused material provided by the Contractor shall be deemed to revest in and become the property of the Contractor who shall remove the same. If the Contractor fails to remove any of the said constructional plant, temporary Works of unused materials within such reasonable time after the completion of the Works as may be allow by the Board then the Board may sell the same and shall after deducting from the proceeds the cost charges and expenses of and in connection with such sale pay the balance (if any) to the Contractor.

Board not liable for Damage to plant Etc. (3) The Board shall not at any time be liable for loss or injury to any of the said constructional plant, Temporary Works, or material.

No Approval by Vesting 45. The operation of the **Clause 44** shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any such time by the Engineer.

MEASURMENT

Quantities

46. The quantities set out in the Bill of Quantities are estimated quantities of the Work but they are not be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract.

Work to be Measured 47. The Engineer shall, except as otherwise stated, ascertain and determine by admeasurements the value in accordance with the Contract of Work done in accordance with the Contract. he shall when he require any part or parts of the Works to be measured give notice to the Contractor's agent or representative who shell forthwith attend or send a qualified agent to assist the Engineer or the representative of the Engineer in making such measurement and shall furnish all particulars required by the either of them. Should the Contractor not attend or neglect or omit to send such agent then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of the Works.

Method of Measurement 48. The Works shall be measured net notwithstanding any general or local custom except where otherwise specially describe or prescribed in the Contract.

PROVISIONAL SUMS

Use o f provisional and Contingency items 49. All the sums set out in the Bill of Quantities which shall be stated to be provisional or for contingencies shall be used only at the direction and discretion of the Engineer and if not used either wholly or in part shall as to the amount not used be deducted from the Contract Price.

Item not monies

50. All item not monies out in the Bill of Quantities shall be used at the direction and discretion of the Engineer and if used either wholly or in part shall as to amount used, added to the Contract price.

CERTIFICATE AND PAYMENT

Bill for On-account Payments 51. (1) The Contractor shall submit to the representative of the Engineer during the execution of the Works on-account bill signed by the Contractor showing the quantities and values of the permanent Works done on the Site as soon as measurements have been recorded as per **Clause 47** hereof.

Rates and Price

(2) The rates and prices in such on-account bills shall be in accordance with those in priced Bill of Quantities so far as such rates and prices are applicable and on the approved rates and prices for other items or Works.

- (3) The quantities in such on-account bills shall be in accordance with the agreed measurement recorded by the representative of the Engineer as per provision of Clause 47 hereof.
- (4) The Contractor will be paid on the certificated of the Engineer the estimated Contract value of the permanent work executed and in addition such amount as the Engineer may consider fair and reasonable for any temporary Works for which separate amounts are provided in the Bill of Quantities subject so far as it applies to a retention of a percentage until the amount retained shall reach the amount of security deposit as per Clause 9 hereof, after which time no further deduction or retention will be made.

Quantities

Advances

52. No certificate other then maintenance certificate referred into Clause 53 hereof shall be deemed to constitute approval of any Work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the Contract or any part thereof or of the accuracy of an claim or deemed made by the Contractor by the Contractor or of additional or varied Work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineer.

Approval only by Maintenance certificate

The Contractor shall not be consider as completed until a maintenance certificate shall have been signed by the Engineer and delivered to the Board stating that the Works have been completed and maintained to his satisfaction. The maintenance certificate shall be given by the Engineer twenty Eight (08) days after the expiration of the period of maintenance (or if different period of maintenance shall become applicable different part of the Works the expiration of the latest such period) and full effect shall be given to the Clause notwithstanding any previous entry of the Works or the taking possession Working or using thereof or any part thereof by the Board. The security deposit of the Contractor shall be refunded after the maintenance certificate has been issued by the Engineer after deducting any sums which may become due from Contractor in terms of provision of Clause 38 (2), 39 and 41 (4) hereof.

Maintenance certificate

2. When the Engineer granted a certificate or certificates of completion of the whole of the Works under Clause 40 hereof and when the Board has ascertained the estimated final sum due to the Contractor the Board shall after allowing for the amount all of previous on account bills and certificate and after allowing for all other payments due form the Contractor to the Board pay to the Contractor such a sum out of balance so calculated as remaining due to the Contractor as will leave to be retained by the Board a sum equal to the security deposit (see Clause 9 hereof).

Payment on Completion

3. Unless otherwise agreed between the Board and the Contractor all payment to be made to the Contractor under this Contract shall be in Pakistani rupee currency.

Currency of payment

REMEDIES AND POWER

56. (1) If the shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy or shall make an arrangement with or assignment in favor of his creditors or shall agree to carry out the Contract under a committee of Inspection of his creditors or (being a corporation) shall go into liquidation (other then a voluntary liquidation for the purpose of amalgamation or reconstruction) or if the Contractor shall assign the Contract without the consent in writing of the Board first obtained or shall have an execution levied on the goods or if the Engineer shall certify in writing to the Board that in his opinion the Contractor.

Forfeiture

- (a) has abandoned the Contract or
- (b) without reasonable excuse has filed to commence the Works or has suspended the progress of the Works for Ten (10) days after receiving from the Engineer written notice to proceed or
- (c) has failed to remove materials from the Site or to pull down and replace Work for 28 days after receiving from the Engineer written notice that the said materials or Work had been condemned and rejected by the Engineer under these conditions
- (d) is not executing the Works in accordance with the Contract or is persistently or flagrantly neglecting to carry out his obligations under the Contract or

(e) Has to the determent of good Workmanship or in defiance of the Engineer's instructions to the contrary sublet any part of the Contract?

Then the Engineer may after giving **14 days** notice writing to the Contractor enter upon the Site and the Works and expel the Contractor there from without hereby avoiding the Contract or releasing the Contractor from any of his obligations or liabilities under the Contract or affecting the rights and powers conferred on the Board of the Engineer by the Contract and may himself complete the Works or may employ any other Contractor to complete the Works and Board or such other Contractor may use for such completion so much of the constructional plant temporary Works or materials which have been deemed to become the property of the Board under the provision of the Contract as he or the Board may think proper and Board may at any time sell any of the said constructional plant, Temporary Works and used materials and apply the proceed or sale in or towards the satisfaction of any sums due which may become due to the Board from the Contractor under the Contract.

Valuation at Date forfeiture

(2) The Engineer as soon as may be practicable after any such entry and such entry and expulsion by the Board fix and determine or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute and shall certify what amount (if any) had at the time of such entry and expulsion been reasonably earned by on or would reasonably accrue to the Contractor in respect of Work then actually done by him under the Contract and what was the value of any unused or partially used materials and constructional plant and any temporary Works which have been deemed to become the property of the Board under the provision of the Contract.

Payment after Forfeiture

(3) If the Board shall enter and expel the Contractor under this **Clause** the Board shall not be liable to pay to the Contractor any money on account on the Contract until the expiration of the period of maintenance and thereafter until the cost of completion and maintenance damages for delay in completion (if any) and all other expenses incurred by the Board have been ascertained and the amount thereof certified by the Engineer the Contractor shall be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the Contractor on due completion by him Contractor shall upon deemed pay to the Board the amount such excess and it shall be deemed a debt due to the Contractor to the Board and shall be recoverable accordingly.

Urgent Repairs

57. If by reason or any accident or failure or other event occurring to in or in connection with the Works or any part thereof either during the execution of the Works or during the period of maintenance any remedial or other Works or repair shall in the opinion of the Engineer or the Representative of the Engineer be urgently necessary for security and the Contractor is enable or unwilling at once to do such Work or repair as the Engineer may by his own or other Workmen do such Works or repair as the Engineer or the Representative of the Engineer may consider necessary. If the Works repairs so done by the Engineer is Works which in the opinion of the Engineer the Contractor was liable to do at his own expense under the Contract all cost and charges property incurred by the Board in so doing shall no demand be paid by the Contractor to the Board or may be deducted by the Board from any monies due or which may become due to the Contractor. Provided always that the Engineer of the Representative of the Engineer (as the case may be) shall as soon as after the occurrence of any such emergency as may be reasonable practicable notify the Contractor thereof in writing.

Bribes Commission Etc.

58. Any bribe commission gift or advantages given promised or offered by or on behalf of the Contractor or his partner, agent or servant or any one on his or their behalf to any officer, servant, representative, or agent of the Board or any person on its behalf in relation to the obtaining or to the execution of this or any other Contractor with he Board shall in addition to any criminal liability which may incur subject the Contractor to cancellation of this and all other Contract and also to payments of any loose or damage resulting from such cancellation to the like extent as is provided in case of forfeiture under **Clause 56** hereof and the Board shall be entitled to deduct the amounts so payable from any monies otherwise due to the Contractor under this or any other Contract.

Any question or dispute as to the commission of any offence under this **Clause** shall be settled by the Board in such manner as it shall think fit and sufficient and its decision shall be final and conclusive.

In case hot Works is involved, the Contractor is liable to take permit from the Port Fire Officer before start of the Works, and hot Work is to be carried out according to his directions.

SETTLEMENT OF DISPUTES

- 59. This Contract shall be governed by the law of Pakistan. Resort to court by either of the parties in respect of any dispute should be had only to an appropriate court within the limit of KARACHI.
 - f Arbitration

Contract

Law Covering the

60 Any dispute regarding the quality of material or Workmanship or currency of measurements or reasonableness of the rate for any item or any other question of an Engineering or Technical nature shall be decided by the Engineer and his decision shall be final and binding on all the parties.

Any other dispute of whatsoever nature (Including the Interpretation of this or any other relevant documents) arising under this Contract (except as to any matters, the decision of which is specially provided for by these conditions) shall be referred to a sole arbitrator to be pointed by the chairman, Karachi Port Trust, who shall have absolute discretion either to a appoint a officer or the K.P.T or any one else as the sole arbitrator. The decision as such sole arbitrator shall be final and conclusive and shall be binding on all the parties to the Contract and the provision of the arbitration Act 1940 and any statutory modification thereof and rules farmed there under shall be deemed to apply to and be incorporated in this Contract.

The Contractor shall not stop the Work during the pendency of the arbitration proceedings, but he shall continue to execute the Work with full speed. However, the Chief Mechanical and Electrical Engineer shall have the power to ask the Contractor in writing to stop the Work in full or in part if he considers it necessary.

FORM OF AGREEMENT

This Agreement made the between the Board of trustees of Trust Act VI of 1886 as amended to one part and	of the Port of Karachi Incorp from time to time thereinaft of (Thereinafter of is desirous that certain V	orated under the Karachi Port er called the "Board" of the called the "Contractor") of the
Contractor for the construction whereas the Contractor has aand has give due fulfillment of the Contract no	n completion and mainte Iready deposited with the en to the Board a lien over	nance of such Works and Board the Sum of Rupees such sum as security for the
respectively assigned to them in	the conditions of Contract It which for the purpose of id f of the Contractor and of the Board all of which sis agreement, viz:- ions of Contract. on of the Contract. s. spondence:- ayment to be made by the otractor hereby covenants	entification have been signed by (The nall be deemed to from and be entired by Board to the Contractor as with the Board to construct
4. The Board hereby covena construction, completion and manner prescribed by the Cont	maintenance of the Work	
<i>In witness where</i> hands and seals the day ar		e hereinto set their respective
Signed sealed an The Chairman and two Tru Karachi.		ard of Trustees of the Port of
Signed by		Chairman
In the presence of		Trustees
Signed by		Trustees
In the presence of		
And		
	alf	(Contractor)
Signed by		
In the presence of		(Contractor)

KARACHI PORT TRUST

MECHANICAL & ELECTRICAL DEPARTMENT

Documents for FINANCIAL BID

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TENDER DOCUMENTS FOR THE:

MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

Contents:

- i. The Tender (02 Pages) (For Financial Bid).
- ii. The Specification & Scope of Work (04 Pages)..
- iii. The Bill of Quantity (B.O.Q) (04 Pages) (For Financial Bid).

One complete set of these Tender Documents duly filled in, signed & stamped must be delivered at CM&EE Committee Room No. 32 at Ground Floor, KPT Head Office before 11.00 A.M on 15-01-2025 in a sealed cover superscribed as per the Tender Notice.

Issued to	
	Name and Addresses of Tenderer:-
Date	

N. B: All tender documents read carefully, to be filled properly and duly singed & stamped each paper. Incomplete tender bids will not be considered.

KARACHI PORT TRUST MECH. & ELECT. ENGINEERING DEPARTMENT-II

"THE TENDER"

Tender are required to fill in the blanks space in this tender Form and the attached Performa "A" To.

The Chief Mechanical & Electrical Engineer
KARACHI PORT TRUST
KARACHI
PAKISTAN

	n of work
any), speci on the said conditions	ng examined the drawing, General Conditions of Contract, and special condition of Contract (if fication and Bill of Quantities for the above named works. We the undersigned offer to carry d works in conformity with the said Drawings General Conditions of the Contract, Special of Contract (if any) specification and Bill of quantities for the sum of Rupees: (Rs) or such other sums as certained with the said conditions.
2	We undertakes if our tender is accupied in whole or in part to commence the work with

- 2. We undertakes if our tender is occupied in whole or in part to commence the work with in days of receipt of the Engineer's order to commence and to complete and deliver the whole of the work comprised in the Contract with in Days calculated form the last days of the aforesaid period in which the works are to be commenced.
- 3. If our tender is accepted in whole or in part we will furnish a Security deposit for due performance of the Contract in accordance with Clause-9 of the General Conditions of Contract.
- **4.** We agree to abide by the tender for a period of Days form the date fixed for receiving same and it shall remain binding upon us may be accepted at any time before expiration of that period.
- **5.** Unless and until a formal Agreement is prepared and executed, this tender, together with your written acceptance thereof, shelf constitutes a binding Contract between us.
- **6.** We understand that you are not bound to accept the lowest or any tender; you may receive and accept any tender in part or in whole.
- **7.** We further agree to pay all cost toward the execution of the Contract Agreement including the cost of stamps.
- 8. We agree that should we withdraw the offer within the aforesaid period or fail to execute the formal Contract Agreement and / or make the required Security deposit, the Board of Trustees of Karachi Port Trust shall be at liberty at their absolute discretion to appropriate our earnest money deposit of Rs Either as agreed liquidated damages without any proof whatsoever of the extend of such damages or an account, reserving to themselves the right to recover from us any further loss or expenses to which they may have been put directly or indirectly by reason of any failure on our part as aforesaid.

9.* We have deposited / sent by Cheque No	•
10. We agree to maintain the work in good order for a pits completion.	period of Months, from the date of
Dated	TENDERER
Place	(Full signature)
Signed by Mr	For and on
Behalf of Messrs	
*Delete whichever is Not Applicable	

(THE TENDER Page 2/4)

SCOPE OF WORK MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

S.No	Description	Qty
1	Water Tight Door:	04 Nos.
	04 Nos. water tight door's rubber to be replaced, rubber channel to be repaired as per requirement, door hanges to be checked, repaired and replaced as per requirement.	
2	Gantries:	
	06 Nos. gantries to be checked & necessary repairs to be carried out and made to be operational.	06 Nos.
	Any steel work required to be carried out.	
	25 Nos. Port & Stbd side gantrie's grease holes to be cleared and nipple to be renewed.	25 Nos.
	06 Nos. hydraulic blocks to be serviced defective parts to be replaced and made operational.	06 Nos.
	14 Nos. Port and Stbd gantrie's sheaves to be checked repaired / replaced as per requirement and made operational.	14 Nos.
	14 Nos. Port and Stbd gantrie's bushes and pins to be checked, repaired / replaced as per requirement.	14 Nos.
3.	Swell Compensators:	02 Nos.
	Both swell compensators {Port & Stbd} to be dismantled, checked, repaired, replaced as per following and defective parts replace as per required:	
	Hydraulic Rams shall go under treatment like grinding / chrome plating / re-grinding & polishing to acquire the original size if required otherwise new hydraulic rams will be arranged.	
	Sets of hydraulic seals, oil ring etc to be renewed.	
	Both swell compensators to be re-assembled.	
	Both swell compensator to be re-installed onboard the vessel.	
	Any in way repair / steel work required to be carried out.	
	Test & trails to be conducted.	
	Transportation & lifting of swell compensator from KPT to workshop and vise-versa will be done by contractor.	
	All tools and spare parts to be arranged by contractor.	
4	Funnel Flap:	02 Nos.
	02 Nos. engine room funnel flaps need to be checked repaired / replaced and made operational as per requirement.	

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5	Electric Motors:	17 Nos.
	The following AC / DC motor to be overhauled as per following scope of work:	
	a. 04 Nos. Gland pump motors 7.5 KW.	
	b. 02 Nos. Flushing pump motors 11 KW.	
	c. 01 No. Firefighting pump motors 18 KW.	
	d. 02 Nos. General Service pump motors 18 KW.	
	e. 02 Nos. Hydraulic Pump motor 7.5 KW.	
	f. 01 No. Hydraulic Pump motor 18.5 KW.	
	g. 02 Nos. Hydraulic Pump motor 110 KW.	
	h. 02 Nos. Bow thruster motor 525 KW.	
	i. 01 No. Caspian motor 18 KW.	
	Scope of Work:	
	Remove the motor from housing on mounting, take a part the motor components including the stator, rotor, bearing and winding.	
	Thoroughly cleaned a motor component, removing dint, grime and old lubricant.	
	Visually inspection the components for damage, wear on corrosion, check the any signs of overhauling, electrical arcing on other damage.	
	Repair and replace the damage parts such as, bearing, windings, stator on motor coxes, commutates on slip rings, replace any damage parts.	
	Re-assemble component in the correct order.	
	Testing, perform electrical and mechanical test to ensure the motor is functioning properly.	
	Apply a new coat of paint on varnish to protect the motor from corrosion.	
	Motor to be re-installed with following:	
	 Checking and adjusting the motor's alignment and balance. 	
	 Motor nut & bolts, seal gasket if any to be check. 	
	Motor switch and stator to be checked.	
	Performing a dynamic balance of the motor etc.	
6	Lightening Transformer:	02 Nos.
	02 Nos. lightening transformer 55 KVA to be serviced insulation to be improved.	
7	Blowers:	07 Nos.
	04 Nos. Engine room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.	
	01 No. Steering room compartment blower with all mechanical assemblies to be checked repaired as per requirement and made operational.	
	O1 No. Technical space blower with all mechanical assemblies to be checked repaired as per requirement and made operational.	
	01 No. Bow thruster room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.	
8	Drag Head:	02 Nos.
	Both Port and Stbd existing California drag head's parts to be inspected thoroughly and rectify the were damage and leakage etc.	
	 Any steel work included top bottom plate to be renewed as per existing drawing, material, plate thickness etc. 	
	b. All heel pad to be renewed.	
	c. Visor to be renewed.	
	d. Jet pump's nozzle to be renewed.	
	e. Drag head to be made operational any in way repair steel work to be carried out if required.	

9	Suction Tube:	01 Job
	Port & Stbd suction tube including single/ double articulations and turning gland to be dismantled completely (till Drag Head) and place it on berth.	
	Dismantled all the associated parts & UT will be performed.	
	All the Weak Pipes, Plate & Profiles to be Change as per UT report.	
	All Pins & Bushes to be replaced with new one.	
	All Flexible Hose Pipes of Dredge Pipeline & Jet Water Pipeline to be replaced with New One.	
	All Cable Tray will be renewed.	
	All Sensors to be serviced and properly joint its cable in Sea Water Proof Terminal box.	
	Chest, Chest Seal, Cooler, Single / Double Articulations and Trunnions, Trunnions gland, elbow suction pipe, suction tube cable tray to be checked with all pin bushes, Sheaves etc. Repair / Replaced as per requirement.	
10	Gangway:	01 Job
	Both Port & Stbd ladder/ gangway to be dismantled.	
	All moving parts, sheaves, pins bushes to be checked.	
	Repair/ Replacement as per requirement.	
	Steel wire to be replaced as per existing.	
	Lowering mechanism to be checked and repair / replaced defective parts as per requirement.	
	Upper and lower platform supporting hanges to be checked repair / replaced	
11	Jet Pump Valve:	10 Nos.
	10 Nos. both Jet Pump, suction and discharge, butterfly valves to be checked, overhauled and made operational. Shaft seal, valve seals, sensors etc. to be replaced. Shaft to be buildup if required.	
12	Shaft Generator:	02 Nos.
	02 Nos. both shaft generator service / insulation/ varnished to be carried out and also insulation test to be carried out	
13	Gate Valve:	02 Nos.
	The following 10 Nos. (700mm) and 02 Nos. (500mm) dredge pump's suction discharge line gate valve to be check and repaired as per following scope of work:	
	Valve to be removed from line.	
	Valve seals to be renewed.	
	Valve gate to be checked, repaired and replaced as per requirement.	
	Valve gland to be checked, repaired and replaced as per requirement.	
	Valve shaft to be checked, rebuild as per requirement.	
	Valve body / casing to be checked, repaired and replaced as per requirement.	
	Upon assembling of valve pressure test on 10 bar to be carried out.	
	Valve to be refitted with new nut bolts, gasket etc.	
	Gate valve actuator cylinder to be alignment with sensor.	
14	Pumps:	08 Nos.
	The following pump to be overhauled as per following scope of work:	-
	 04 Nos. Gland Pumps. 02 Nos. General Service (GS) Pump. 02 Nos. Flushing. Scope of Work: 	
	Pump to be taken out from foundation.	
	Pump components i.e. Impeller, impeller suction & discharge wear ring, shaft, shaft bearing, shaft seal, pump casing etc. to be dismantled for leakage, corrosion and worn out.	
	Seal, pump casing etc. to be dismantied for leakage, corrosion and worm out.	
	All dismantled components to be degreased, cleaned, calibrated, repaired and replaced as per requirement.	

15	Painting of Superstructure:	01 Job
	The following area to be grit blast / hydro blast / chipping, scrapping and surface to be achieved SA2.5 as per IP paint inspector to be carried out:	
	Superstructure, winches, swell compensator, decks and hopper area. (approx area 8000 sq. meter) 04 coats to be applied as per International Paint Scheme.	Paint to be provided by KPT
16	Dredge Pipe line:	
	Complete straight dredge pipe line dia 700mm included bend and branches to be safely removed	
	UT to be carried out.	
	Repairing of the damaged pipes bends & branches as per UT report and all straight pipe line to be turned down and then re-install the complete pipeline with new rubber packing, nut and bolts.	
	50 meter pipe line (dia 700mm) GS30Mn5 A-Grade ship Quality / S275JR, 14mm thickness to be quoted (unit cost to be quoted).	50 meter
	10 Nos. bend (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted)	10 Nos.
	07 Nos. branch (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted).	07 Nos.

TERMS AND CONDITIONS:

- 1. Tools, lifting equipment, welding machine, welding electrode, gas cutting equipment and gas cylinder is firm's responsibility during the aforementioned repair work.
- 2. Transportations from Craft to work place, to Craft are firm's responsibility.
- 3. Safety and safety equipments are firm's responsibility during repair.
- 4. Any unforeseen work during repair is firm responsibility.
- 5. Upon completion of repair work the satisfactory test trial in the presence of ship Engineer / staff is firm responsibility.

MECHANICAL ENGINER (WS)

DY. CHIEF MECH ENGINEER (WS)

KARACHI PORT TRUST MECH & ELECT ENGG. DEPARTMENT-II B.O.Q

MISCELLANEOUS WORK OF ABOVE WATER - DREDGER TSHD ABUL

S.No	Description	Qty	Material Price in Rs.	Labour Price in Rs.
1	Water Tight Door:	04 Nos.	1 1100 111 1101	11100 111101
	04 Nos. water tight door's rubber to be replaced, rubber channel to be repaired as per requirement, door hanges to be checked, repaired and replaced as per requirement.			
2	Gantries:			
	06 Nos. gantries to be checked & necessary repairs to be carried out and made to be operational.	06 Nos.		
	Any steel work required to be carried out.			
	 25 Nos. Port & Stbd side gantrie's grease holes to be cleared and nipple to be renewed. 	25 Nos.		
	06 Nos. hydraulic blocks to be serviced defective parts to be replaced and made operational.	06 Nos.		
	 14 Nos. Port and Stbd gantrie's sheaves to be checked repaired / replaced as per requirement and made operational. 	14 Nos.		
	14 Nos. Port and Stbd gantrie's bushes and pins to be checked, repaired / replaced as per requirement.	14 Nos.		
3.	Swell Compensators:	02 Nos.		
	 Both swell compensators {Port & Stbd} to be dismantled, checked, repaired, replaced as per following and defective parts replace as per required: 			
	 Hydraulic Rams shall go under treatment like grinding / chrome plating / re-grinding & polishing to acquire the original size if required otherwise new hydraulic rams will be arranged. 			
	Sets of hydraulic seals, oil ring etc to be renewed.			
	Both swell compensators to be re-assembled.			
	Both swell compensator to be re-installed onboard the vessel.			
	Any in way repair / steel work required to be carried out.			
	Test & trails to be conducted.			
	 Transportation & lifting of swell compensator from KPT to workshop and vise-versa will be done by contractor. 			
	All tools and spare parts to be arranged by contractor.			
4	Funnel Flap:	02 Nos.		
	02 Nos. engine room funnel flaps need to be checked repaired / replaced and made operational as per requirement.			
5	Electric Motors:	17 Nos.		
	The following AC / DC motor to be overhauled as per following scope of work:			
	a. 04 Nos. Gland pump motors 7.5 KW.			
	b. 02 Nos. Flushing pump motors 11 KW.			
	c. 01 No. Firefighting pump motors 18 KW.			
	d. 02 Nos. General Service pump motors 18 KW.			
	e. 02 Nos. Hydraulic Pump motor 7.5 KW.			
	f. 01 No. Hydraulic Pump motor 18.5 KW.			
	g. 02 Nos. Hydraulic Pump motor 110 KW.			
	h. 02 Nos. Bow thruster motor 525 KW.			
	i. 01 No. Caspian motor 18 KW.			
	Scope of Work:			
	 Remove the motor from housing on mounting, take a part the motor components including the stator, rotor, bearing and winding. 			

	Thoroughly cleaned a motor component, removing dint, grime and old lubricant.		
	Visually inspection the components for damage, wear on corrosion, check the any signs of overhauling, electrical arcing on other damage.		
	Repair and replace the damage parts such as, bearing, windings, stator on motor coxes, commutates on slip rings, replace any damage parts.		
	Re-assemble component in the correct order.		
	Testing, perform electrical and mechanical test to ensure the motor is functioning properly.		
	Apply a new coat of paint on varnish to protect the motor from corrosion.		
	Motor to be re-installed with following:		
	 Checking and adjusting the motor's alignment and balance. 		
	 Motor nut & bolts, seal gasket if any to be check. 		
	 Motor switch and stator to be checked. 		
	Performing a dynamic balance of the motor etc.		
6	Lightening Transformer:	02 Nos.	
	02 Nos. lightening transformer 55 KVA to be serviced insulation to be improved.		
7	Blowers:	07 Nos.	
	04 Nos. Engine room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.		
	 01 No. Steering room compartment blower with all mechanical assemblies to be checked repaired as per requirement and made operational. 		
	01 No. Technical space blower with all mechanical assemblies to be checked repaired as per requirement and made operational.		
	01 No. Bow thruster room blower with all mechanical assemblies to be checked, repaired as per requirement and made operational.		
8	Drag Head:	02 Nos.	
	Both Port and Stbd existing California drag head's parts to be inspected thoroughly and rectify the were damage and leakage etc.		
	Any steel work included top bottom plate to be renewed as per existing drawing, material, plate thickness etc.		
	b. All heel pad to be renewed.		
	c. Visor to be renewed.		
	d. Jet pump's nozzle to be renewed.		
	Drag head to be made operational any in way repair steel work to be carried out if required.		
9	Suction Tube:	01 Job	
	 Port & Stbd suction tube including single/ double articulations and turning gland to be dismantled completely (till Drag Head) and place it on berth. 		
	 Dismantled all the associated parts & UT will be performed. All the Weak Pipes, Plate & Profiles to be Change as per UT 		
	report. • All Pins & Bushes to be replaced with new one. • All Flovible Hose Pines of Dredge Pineline & Let Water Pineline to		
	All Flexible Hose Pipes of Dredge Pipeline & Jet Water Pipeline to be replaced with New One.		
	All Cable Tray will be renewed.		
	All Sensors to be serviced and properly joint its cable in Sea Water Proof Torming boy		
	Water Proof Terminal box. • Chest, Chest Seal, Cooler, Single / Double Articulations and		
	Trunnions, Trunnions gland, elbow suction pipe, suction tube		
	cable tray to be checked with all pin bushes, Sheaves etc. Repair / Replaced as per requirement.		

40		04.1.1	
10	Gangway:	01 Job	
	Both Port & Stbd ladder/ gangway to be dismantled.		
	All moving parts, sheaves, pins bushes to be checked.		
	Repair/ Replacement as per requirement.		
	Steel wire to be replaced as per existing.		
	Lowering mechanism to be checked and repair / replaced		
	defective parts as per requirement.		
	Upper and lower platform supporting hanges to be checked		
	repair / replaced		
11	Jet Pump Valve:	10 Nos.	
	10 Nos. both Jet Pump, suction and discharge, butterfly valves to		
	be checked, overhauled and made operational. Shaft seal, valve		
	seals, sensors etc. to be replaced. Shaft to be buildup if required.		
12	Shaft Generator:	02 Nos.	
	02 Nos. both shaft generator service / insulation/ varnished to be		
	carried out and also insulation test to be carried out		
13	Gate Valve:	02 Nos.	
13		02 1103.	
	The following 10 Nos. (700mm) and 02 Nos. (500mm) dredge pump's suction discharge line gate valve to be check and repaired as per		
	following scope of work:		
	Valve to be removed from line.		
	Valve seals to be renewed.		
	Valve gate to be checked, repaired and replaced as per		
	requirement.		
	 Valve gland to be checked, repaired and replaced as per requirement. 		
	Valve shaft to be checked, rebuild as per requirement.		
	Valve body / casing to be checked, repaired and replaced as per requirement.		
	 Upon assembling of valve pressure test on 10 bar to be carried out. 		
	Valve to be refitted with new nut bolts, gasket etc.		
	Gate valve actuator cylinder to be alignment with sensor.		
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14	Pumps:	08 Nos.	
	The following pump to be overhauled as per following scope of work:	33 . 133.	
	04 Nos. Gland Pumps.		
	02 Nos. Flushing.		
	Scope of Work:		
	Pump to be taken out from foundation.		
	 Pump components i.e. Impeller, impeller suction & discharge wear ring, shaft, shaft bearing, shaft seal, pump casing etc. to be dismantled for leakage, corrosion and worn out. 		
	All dismantled components to be degreased, cleaned, calibrated,		
	repaired and replaced as per requirement.		
	Pump to be re-assembled, aligned and made to be operational:		
	is the second se		
15	Painting of Superstructure:	01 Job	
	The following area to be grit blast / hydro blast / chipping, scrapping and surface to be achieved SA2.5 as per IP paint inspector to be carried out:	01000	
	Superstructure, winches, swell compensator, decks and hopper	Paint to be	
	area. (approx area 8000 sq. meter) 04 coats to be applied as per	provided	
	International Paint Scheme.	by KPT	

16	Dredge Pipe line:			
	50 meter pipe line (dia 700mm) GS30Mn5 A-Grade ship Quality / S275JR, 14mm thickness to be quoted (unit cost to be quoted).	50 meter		
	10 Nos. bend (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted)	10 Nos.		
	07 Nos. branch (Dia 700mm) to be quoted with existing material GS30Mn5 A Grade ship Quality / S275JR, 14mm thickness (unit cost to be quoted).	07 Nos.		
	(Where applicable) Total Material Cost 18% GST on item No 9			
	(Where applicable) Total labor cost			
	15% SST on item No 1 to 8 and 10 to 16			
	Grand Total Including GST & SST			
MANDAT	Tools, lifting equipment, welding machine, welding electrode, cylinder is firm's responsibility during the aforementioned repair welding and safety equipments are firm's responsibility during repair and unforeseen work during repair is firm responsibility. Upon completion of repair work the satisfactory test trial in the perimeresponsibility. TORY REQUIREMENT Sity Period: 90 Days w.e.f. the date of tender opening and furted on request.	rork. nsibility. iir. resence of ship	o Engineer / sta	ff is
b. Delivery / Completion Period:				
<u>c. Terms of Payment</u> : 100% payment against completion of subject work after satisfactorily test & trials will be conducted in the presence of KPT Engineer.				

<u>d. Guarantee</u>: 12 Months Guarantee w.e.f. date of completion and satisfactory test / trials of subject work.

SIGNATURE OF TENDERER

DATED_____

NAME & ADDRESS OF TENDERER: