

## CORRIGENDUM

TENDER NO. DCI/TECH/117/12/2018-19 Dated 24/07/2018  
DRYDOCK & AFLOAT REPAIRS OF DCI DREDGE-XVII

The following corrections may please be incorporated in the Tender Document.

**Sl. No. 6 of Covering Letter** may please be read as "Interested parties may visit DCI DREDGE-XVII presently deployed at Kochi, C/o Dredging Corporation of India Ltd., Contact No of Project Manager 09656100338, for inspection and satisfy themselves before submitting their tender".

  
General Manager (Tech)



**DREDGING CORPORATION OF INDIA LIMITED**  
(A Government of India under Taking)  
"Dredge House" Port Area,  
VISAKHAPATNAM-530 035 (INDIA)

Phone: 91-891-2871378/2871395  
Mobile: 09949825217  
Fax : 91-891-2560581/2565920  
E-mail: hodtech@dcil.co.in

**NIT REF: DCI/TECH/117/12/2018-19**

**Date: 24/07/2018**

**NOTICE INVITING TENDERS**

1. Sealed tenders are invited from reputed **Yards** for attending drydock & afloat repairs of DCI DREDGE-XVII. The vessel requires to be dry-docked **for an estimated period of 60 days by Last week of August'18.**

Repair jobs to be attended are given below:

- a) Dock hire and Service Charges
- b) Surface Preparation, Cleaning and Painting
- c) Steel Plate Renewals
- d) Bottom door repairs, Upper doors & Overflow duct repairs
- e) Propellers, Rudders, bow thrusters & CPP System
- f) Engine Room Machinery
- g) Deck Machinery, Hyd. / Obd. valves & pipe lines
- h) Pump room machinery and dredging equipment
- i) Electrical Equipment
- j) Cost plus Jobs

2. Interested Ship repair yards can download tender documents from our Website [www.eprocure.gov.in](http://www.eprocure.gov.in) OR [www.dredge-india.com](http://www.dredge-india.com)

3. The downloading of tender documents shall be carried out strictly as provided on the website. No addition, editing, deletion of matter shall be permitted. If such action is observed at any stage, such tender will not be considered and will be rejected.

4. The Tenderer shall deposit cost of tender documents of Indian Rs. 6000.00 into DCI account No: 35833070000014, IFSC code: SYNB0003583, MICR code: 530025003, Syndicate Bank, DCI Branch, Visakhapatnam and to enclose evidence of receipt along with Technical Bid documents, without which Tenders will be rejected.

5. **Earnest Money Deposit (EMD):** The Tenderer shall deposit Earnest Money deposit of Indian Rs. 10,02,000.00 (Indian Rupees Ten Lakhs Two thousand only) into DCI account No: 35833070000014, IFSC code: SYNB0003583, MICR code: 530025003, Syndicate Bank, DCI Branch, Visakhapatnam and to enclose evidence of receipt along with Technical Bid documents, without which Tenders will be rejected.

6. The last date for submission of tender is **1500** hours on **13.08.2018**

7. Further instructions are given in the tender documents.

General Manager (TECH)



**DREDGING CORPORATION OF INDIA LIMITED**  
(A Government of India Undertaking)  
"Dredge House" Port Area,  
VISAKHAPATNAM-530 035

DCI/TECH/117/12/2018-19

Date: 24.07.2018

To,  
M/s.

Dear Sirs,

Sub: Invitation of tenders for drydock & afloat repairs of DCI DREDGE-XVII, IMO NO: 9217292

---

1. Dredging Corporation of India Ltd., a Public Sector Undertaking, under the Ministry of Shipping, Govt. of India, owning a fleet of dredgers, is calling for tenders to carry out planned drydock & afloat repairs of DCI DREDGE-XVII, by 11<sup>th</sup> August 2018. The vessel, built in 2001 by IHC, Merwede, is a 7500 M<sup>3</sup>, Hopper capacity Trailer Suction Hopper Dredger with Twin Screw and Controllable Pitch Propellers (CPP).

2. The tender should be submitted in two cover bid system duly super scribed "Tender for Dry Dock and afloat repairs of Dredge-XVII – Part-I Technical Bid, and Part-II Financial Bid" in two separate covers which are to be put in one single cover super scribed "Tender No: DCI/TECH/117/12/2018-19, Date: 24.07.2018 and due date: 13.08.2018". The Technical Bid should contain the following:

- i. Schedule-I of the Tender documents i.e. General Tender Conditions duly stamped and signed by authorized signatory;
- ii. Schedule-II of the tender documents i.e. Special Terms and Conditions duly stamped and signed by the authorized signatory;
- iii. The tenderer should submit proof of their past experience in repairing at least two in number modern Trailer Suction Dredgers of 3000 Cu. M. capacity and above during the last 5 years;
- iv. The Technical Bid should not contain any prices but should indicate the percentage of taxes, duties, etc., if any and also should clearly indicate whether such taxes and duties etc. were included in the Financial Bid or otherwise.
- v. Any issues which have a bearing on the Financial Bid are to be brought out in the Technical Bid.
- vi. Technical Bids of Yards should clearly indicate the number of days in dry dock and number of days of afloat repairs and trials. Yards should clearly indicate the availability of dock space and lead time if any. Yards should clearly indicate their quotation validity and acceptance to DCI tender terms & conditions. However, any deviations to the tender (both in technical & price bid) are to be listed out and brought into notice in Technical Bid only.
- vii. Cost of Tender documents Rs.6,000.00 and EMD Rs. 10,02,000.00 shall be deposited into DCI account No: 35833070000014, IFSC code: SYNB0003583, MICR Code: 530025003, Syndicate Bank, DCI Branch, Visakhapatnam, and to enclose evidence of receipt along with tender.
- viii. Without cost of Tender documents and EMD, tenders will be rejected.

3. The second cover containing the Financial Bid should contain the financial offer as per Schedule-IV duly indicating the cost of repairs against each item of repair both in figures and words and signed by authorized signatory. In addition, the Annexure to Schedule-IV should be filled in, duly signed by authorized signatory and submitted with the Financial Offer.

4. Two sets of tender documents consisting of the following schedules are to be downloaded from our website for submission of your most competitive time and cost offer in two-cover bid system in line with para-2 above:

- |                         |   |   |
|-------------------------|---|---|
| a. Schedule-I           | : | General Tender Conditions                   |
| b. Schedule-II          | : | Special Conditions                          |
| c. Schedule-III         | : | Particulars of Dredger                      |
| d. Schedule-IV          | : | Work scope-group wise repair Specifications |
| e. Annexure-I to Sch-IV | : | Summary of offer                            |
| f. Schedule-V           | : | List of deviations, if any.                 |
| g. Schedule-VI          | : | Guidelines to the Yard                      |
| h. Schedule- VII        | : | Details of the yard.                        |
| i. Schedule- VIII       | : | Check List for Tenderers.                   |

5. While submitting your competitive offer, you are advised to consider 30% increase in scope of work over and above the jobs specified at Schedule-IV towards unforeseen jobs.
6. Interested parties may visit DCI DREDGE-XX presently deployed at Kolkata / Haldia, C/o Dredging Corporation. Of India Ltd., Contact No of Project Manager 09007002202, for inspection and satisfy themselves before submitting their tender.
7. Tenders will be received at the following address:  
THE GENERAL MANAGER (TECHNICAL)  
DREDGING CORPORATION OF INDIA LTD.,  
DREDGE HOUSE, PORT AREA,  
VISAKHAPATNAM- 530 001  
ANDHRA PRADESH, INDIA
8. All the dry docking repairs are to be carried out under the inspection / supervision of Indian Register of Shipping. However, IRS fees for this purpose will be borne by DCI.
9. The tenders will be received till 1500 hours 13.08.2018 and only Technical Bids (Part-I) will be opened on the same day at 1530 hours at DCI Head Office, Visakhapatnam, in the presence of tenderers who wish to be present at that time. The Financial Bids (Part-II) of the technically qualified tenderers will be opened at a later date with prior intimation to the tenderers.
10. Tenders received after the due date and time shall not be considered and summarily rejected. The delay due to postal / courier services, etc., shall not be considered.

Thanking you,

Yours faithfully,  
for Dredging Corporation of India Limited,

(Dr. GVR Murthy)  
General Manager (Tech)

Encl: As above.

**DREDGING CORPORATION OF INDIA LIMITED  
(A Govt. of India Undertaking)  
'DREDGE HOUSE', PORT AREA,  
VISAKHAPATNAM – 530 001**



**TENDER NO. DCI/TECH/117/12/2018-19, DT: 24.07.2018  
DUE DT: 13.08.2018**

**FOR**

**DRY DOCK AND AFLOAT REPAIRS OF  
DCI DREDGE-XVII**



**DREDGING CORPORATION OF INDIA LIMITED  
VISAKHAPATNAM**

INDEX

S.No.	Description
1	Schedule – I: General Conditions
2	Schedule – II: Special Conditions
3	Schedule – III: Vessel Particulars
4	Schedule – V: List of Deviations if any.
5	Schedule – VI: Guidelines
6	Schedule – VII: Details of the yard
7	Schedule – VIII: Check List for Tenderers.
8	Schedule – IV: Work Package
9	Annexure to Schedule -IV
10	Undertaking of Shipyard
11	Shipyard Qualification Template (Part-I) and Technical Qualification template (Part-II)- Annexure-I
12	Format for comfort letter from Bank.- Annexure-II
13	Husbandry Services – Annexure-III
14	FORMAT of Work Done Certificate (WDC)-Annexure-IV
15	Annexure to finance bid

**SCHEDULE-I**  
**GENERAL TENDER CONDITIONS**

**01. METHOD OF PREPARATION OF QUOTATION:**

Kindly ensure compliance with the following points, while preparing the price bid:

- (a) Please quote all works as it is specified in our specification without any exclusion, deviation or qualifying remarks.
- (b) Please do not assume anything on your own as assumption can differ from Yard to Yard, making proper comparison difficult. In case of any doubt of any additional clarification are required, please contact us before submitting your quotation.
- (c) Yard shall consider all the notings specified under the "Annexure to Finance Bid"
- (d) Grand total price of the quotation, along with total repair time should be indicated in the beginning of the quotation.
- (e) Quotations for each item should include access work, if any, cost of staging, temporary lighting, cleaning materials and ventilation for carrying out work where ever required.
- (f) The second copy of the Tender provided, shall be utilized for submission of quotations by the Yard.
- (g) **The tenderer to strictly quote for all items in the document as provided on the website only. If the tenderer fails to quote for any item and such action is observed at any stage, such tender will not be considered and will be rejected.**

**02. TENDER RATES:**

Rates should be quoted against each item. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. The Group wise total should be indicated both in figures and words. If there is discrepancy between words and figures, the amounts in words will prevail. The rates are to be quoted strictly as per the format and no deviations from the tender terms and conditions shall be accepted.

**03. CORRECTIONS IN TENDER:**

Any corrections in the tender documents shall be supported by signature of the Tenderer and total corrections made should be indicated. Fax / E-mail offers will not be considered and shall be rejected. The language used for all correspondence in the tender documents shall be English.

**04. PERFORMANCE FACTOR:**

The Performance factor will be considered as 1.0 for all the yards.

**05. COUNTER CONDITIONS:**

Tenders with counter conditions shall be summarily rejected. However, cost quoted against any item or part of item stated to be additional work scope (which is beyond DCI work scope) if quoted by the yard, shall not be considered as counter conditions. Cost quoted against items of work scope shall be considered and will be taken while evaluation of tenders.

**06. REJECTION OF TENDERS:**

DCI reserves the right to reject any or all the tenders without assigning any reason. DCI shall reserve the right of accepting any quotation lowest or otherwise for whatsoever reason and its decision in this regard will be final.

**07. METHOD OF EVALUATION OF TENDER:**

The total evaluated cost (**S. No: (h)**) will be considered for arriving at the lowest Tenderer (L-1) as per details below:

SI.No	Item	
(a)	Basic Repair Cost	XXX.XX
(b)	Standing cost of the vessel per day	<b>22.63 Lakhs</b>
(c)	DCI estimated days	60 days
(d)	No. of days quoted by the yard	XX days
(e)	Passage time = to and fro from the repair yard (No. of days)	XX days
(f)	Voyage cost = Item (e) x (Standing Cost per day + fuel cost per day)	XXX.XX
(g)	Cost for additional days = (Item (d) – Item (c)) x Standing Cost per day	XXX.XX
(h)	Total Evaluated Cost: (a + f + g)	XXX.XX

**For the purpose of evaluation of Tender the following shall be considered:**

- I. Average speed of the vessel during the voyage period shall be considered as 13 knots/hour. Fuel consumption 25 KL, HF HSD per day during voyage period.
- II. The dredger is presently in KOCHI and after completion of repairs the dredger will be deployed at KOCHI. (Actual location may vary as per operational requirement).
- III. For shipyards submitting the bid in foreign currency, if any, the financial evaluation will be carried out by considering currency conversion rate in Rupees as of tender opening date (Technical bid) specified in NIT.
- IV. In case if yard quotes less repair duration than DCI's estimate, DCI estimated days will only be considered for the purpose of evaluation. However, award of contract for successful bidder will be as per the quoted duration.
- V. Agency/husbandry services charges submitted by the yard will not be considered for the purpose of price evaluation.

**08. PROCEDURE FOR AWARDING WORKS:**

The awarded scope of work will be reviewed by Master/ CEO as per actual condition at the time of docking (Ship not required to raise DL cum WO for tender scope additionally).

If any Additional jobs / deletions or change in work identified during inspection, the same shall be undertaken by yard on the basis of Additional work Requisition issued by Master / CEO with due approval of Attending Superintendent. After satisfactory completion of works, Yard has to obtain work done certificates (in prescribed format) duly signed by Master/ CEO of the Vessel and counter signed by Attending Superintendent. The original signed work package, additional works are to be submitted in 4 copies along with invoice (ONE ORIGINAL with Original Invoice & 2 COPIES along with duplicate Invoice and ONE COPY to the dredger) to be submitted to DCI Head Office along with a paint guarantee certificate from OEM wherever required. In the circumstances requiring urgent repairs, even letter/fax/e-mail communication/ in lieu of work order will be issued followed by confirmatory work order duly sanctioned by the Competent Authority.

**09. ADDITIONAL WORKS:**

- a) Any additional works entrusted by the Owner, shall be carried out by the tenderer, subject to the variation clause. In respect of such works where rates are not available in the tender, the rates payable shall be on "Cost Plus" basis for which details of material used and manpower employed shall be indicated in the Work Done Certificate.
- b) For quoted items of work, if the quantum is actually different from that indicated in the specification, the cost would be calculated on pro-rata basis.
- c) Additional quotations (which are not covered in original scope of work package/NIT) of yard will be considered against the additional jobs, which are must be approved and awarded by attending superintendent (AS), for settlement claims by DCI.
- d) Our Attending Superintendent will sanction additional jobs as required. Work Done Certificate (WDC) will be certified by Master/ Chief Engineer Officer of the vessel along with Attending Superintendent. Yard has to submit additional quotes against additional jobs and get approved by Attending Superintendent.

**10. OWNER APPROVED SUB-CONTRACTORS:**

Owner's approved OEM Service personnel are to be allowed to work onboard the Vessel during the repair period on the mutual understanding that they would comply with Yard's procedures and requirements.

**11. REPAIRS INVOLVING CLASS:**

Wherever the repairs involving classification Surveys are to be carried out, same will be done under the Supervision and as per the recommendations of the IRS. Surveyor fees for repairs will be paid by DCI.

**12. AREAS FOR BLASTING:**

The areas indicated for grit blasting and grit sweeping, are only estimated areas which are subject to increase or decrease after actual inspection by the Owner's representative.

**13. SUPPLY OF PAINTS:**

- a) Paint – OEM Certificate of guarantee for 36 months (Underwater) to be issued by Yard.
- b) All paints shall be supplied by the Shipyard and are to be applied by airless spray. Airless spray machines shall be capable of generating sufficient pressure to fully atomize heavy coatings.



- c) All paints are to be applied only on clean and dry surfaces.
- d) Care should be taken with regard to allowable temperature and humidity condition which are to be strictly observed.
- e) All coatings are to be smoothly applied free from sags and runs.
- f) For paint coatings, the specified minimum thicknesses are to be strictly adhered to.
- g) Deficiencies in film thickness are to be made up prior to the application of final coat in order to avoid patched appearance.
- h) Painting job of hull, underwater shell are to be undertaken as per the guidance of paint Manufacturer and their Service Engineer.

**14. STEEL RENEWAL:**

All steel renewals as per the Surveyor's recommendation and as per ultrasonic thickness (UTG) readings are to be countersigned by the Surveyors before and after repairs. The relevant reports are to be submitted to the ship's staff in three copies. (Consider specific Weight of steel 7.85 gms/Cu.Cm only)

**15. ULTRASONIC GAUGING:**

As soon as the vessel enters dock, the ultrasonic thickness gauging (UTG) of the ship's hull, decks, tank tops, suction tubes etc., is to be taken, readings to be plotted as per respective drawings and submitted to Class Surveyor, Attending Superintendent and Ship staff for record and reference.

**16. REPAIRS TO FIRE MAIN LINE:**

When repairs are undertaken to the fire main line, Yard is to ensure that section of the pipe line under repairs is isolated from ship's fire main line. Period required for isolating the line, when no water pressure will be available in the fire main, is to be kept to the minimum and the duty officers/ duty Engineer is informed when this work is undertaken. During this period of repairs to fire main line, alternative fire fighting arrangements should be made for the area where water has been cut.

**17. REMOVAL OF DEBRIS:**

Yard shall arrange removal of debris and dirt from the vessel, arising out of repairs, at regular intervals during the repair. This will be on Yard's account and no separate payment will be made for this.

**18. SPARES AND SCRAP:**

For certain items it has been indicated in the Schedule-IV that the rates are for Renewals with ship's supply of spares. In such cases where supply of spares could not be arranged by the ship, the same shall be supplied by the repairer and the actual cost plus overhead i.e., 10 % mark-up will be paid and reasonable supply time will be allowed by the Corporation. All Steel/ Ferrous metallic scrap generated during repair shall be cleared and disposed off by the yard at their risk & cost. Further, an equivalent amount towards ferrous scrap is to be reimbursed to DCI (The same to be quoted in Group-C on Kg/LOT basis). In case, DCI requires any of the scrap items generated out of the repairs, will have the right to take back for its use. Yard will not have any claim on such items. Non-Ferrous metallic scrap generated out of the repairs shall be the property of DCI and will be cleared within 90 days from the date of delivery of DCI.

**19. FUEL, LUB OIL AND SLUDGE:**

Emptying the fuel/ lube oil tanks and gas free inspection are to be carried out by the Shipyard. Wherever sludge is removed from the oil tank/ ballast, the quantity of mud/ sludge removed, should be witnessed by the ship's officers and quantity assessed to be got approved from the Master / C.E.O. The sludge is to be disposed off to the shore by the Yard for which DCI will pay as per quoted rate.

**20. DOUBLE BANKING:**

In case the vessel is double banked, Yard has to make sure that adequate crane facilities are available so that the work is not hampered.

**21. FIRE WATCH:**

Fire watchmen should wear distinctive uniform which should be made known to the ship's officers on arrival. Fire watchmen are to report to Chief Officer and Chief Engineer Officer at least once every day. The Fire Watchmen should follow procedures as per ISM Standards.

**22. TIME REQUIRED FOR COMPLETION OF REPAIR WORKS:**

Total repair time quoted by the Yard should be in continuous running days, including work on Saturdays, Sundays and Local & National holidays, that would be required for completing the work, from the day the Vessel arrives at the repair Yard.

- a) In case of any statutory holidays when the Yard cannot undertake repair work, also shall be reckoned in the total time quoted. Yard should also take into account the prevailing weather conditions, for assessing the total repair period.
- b) While quoting, time required to complete repairs (including variation clause), same should be given as follows:

Total time required for Repairs: **60 Days** comprising of both Dry dock and at Repair berth (Wharf).

**23. DRY-DOCKING PERIOD:**

- a) Dry docking period shall be reckoned from the date as decided by Attending Superintendent (AS) basing on arrival of the Vessel at the Yard till the date of sailing of the Vessel from the Yard, after satisfactory completion of repairs and machinery / dredging trials.
- b) Arrangement are to be made to commence afloat repairs (or) to dry dock the Vessel within two days on arrival at the Yard and no allowance will be given for keeping the Vessel idle before dry docking.
- c) After completion of all repairs, yard shall complete and show all satisfactory sea trials within two days. Time allowed towards Sea trials is on DCI account.
- d) Vessel stay at Yard for closure of Statutory Surveys certification for default of the yard shall be on account of Yard.

**24. BAR CHART:**

A detailed Bar Chart / Gantt Chart (Level-III) for dry dock repairs shall be submitted along with technical bid. Revised bar charts if any are to be submitted by the yard from time to time to evaluate the progress of work.

**25. PERIODIC REVIEW:**

The progress of all the works will be reviewed and discussed periodically according to the bar chart in presence of Master/Chief Engineer Officer of the Vessel and Attending Superintendent. The minutes of meeting are to be recorded.

**26. UNSATISFACTORY PROGRESS OF WORK:**

If it is noticed by the authorized officer of the Corporation that either the work is not being executed or the progress is not satisfactory, the Corporation reserves the right to entrust the balance work to some other party at the sole risk and cost of the Tenderer. This is in addition to the L.D. clause provided under Clause No. 9 of the Special Conditions of the tender at Schedule-II.

**27. TRIALS:**

All items in the specifications, repaired by the Yard, should be tested to the satisfaction of ship's staff. Cost & Time towards Calibration, Pressure Testing, purging, hose testing Dye penetrate test, Megger test, lowering tubes, gantries, cylinders etc. are generally included in the Yards quotations. However on completion of all repairs, trials of equipment & systems to conduct in dock basin, then to offer satisfactory dredging trials.

**28. REPAIR GUARANTEE:**

The Tenderer should strictly adhere to the time schedule, quality and stand guarantee for all dry dock repairs carried out onboard the dredger for a period of 90 days. Any repair required within this period shall be rectified by the tenderer at their own risk and cost.

**29. SAFETY PRECAUTIONS:**

It shall be the responsibility of the Yard that when the sub-contractors are working onboard our Dredger/ship, necessary safety precautions against accident/ fire/ damage to ship's property/ personnel must be followed and to avoid such incident. DCI shall not be anyway responsible for such incidents (if any) and Yard will only be fully responsible. The yards are required to follow ISM and ISPS procedures and continue the repair work.

### **30. SPECIAL TERMS:**

All Yards are required to strictly adhere to the following. No deviations or counter offers to these special conditions will be accepted and offers not confirming to these special conditions shall be rejected.

- a) The work package indicated in our repair specifications are likely to increase by **30%** for the same or similar defect list per every item quoted and also shall be carried out in the same quoted time. No time over run will be allowed for this. However, vessel shall indicate all the additional jobs immediately on her arrival at the yard / after opening the equipment / on receipt of UTG reports.
- b) Obtaining Gas-free Certificates, Man entry Certificates, Painting & Welding permission and any other statutory certificates required for carrying out work onboard will be the responsibility of the Yard.
- c) Because of the very nature of work, the Dredger is likely to arrive at the Yard with mud and with stern tube leakage's. Such conditions are to be accepted by the Yard and no penalty will be levied to DCI. Precautions with regard to oil leakage through Stern Tube Seals and pollution of the environment must be taken by the Shipyard and as per the statutory requirements, rules and regulations of the Territory where the Yard is located. DCI will not accept any liability whatsoever in this regard.
- d) The Attending Superintendent reserves the right to cancel any scope of work.

### **31. QUALITY ASSURANCE:**

Since quality of workmanship is of utmost importance the yard should strive to achieve the same by following a formalized Quality Assurance Plan (QAP). A two tier inspection plan shall be followed as a part of QAP. Each equipment, system or fitting is required to be inspected by appropriate personnel of the yard first before presenting the same for inspection of vessel staff. After inspection, the yard shall submit to vessel staff in writing the parameters checked and results thereof. A list of equipments, systems and fittings and format thereof for which written QAP is required to be submitted by yard is to be finalized in consultation with Master/ Chief Engineer/ Attending Superintendent within one week of the Vessel's arrival at the yard.

### **32. FORCE MAJEURE:**

Force Majeure Condition would mean Gale, Heavy Rain and Acts of God, as certified by the Attending Superintendent. Yard has to submit **weather report against Force Majeure** Conditions as documentary evidence.

### **33. SECURITY CLAUSE:**

While evaluating the tenders, due regard would be paid to national Defence and security considerations. The yards are required to follow ISPS Procedures during the period of Stay / Repair / Wharfage.

### **34. APPLICABILITY OF GENERAL AND SPECIAL TERMS AND CONDITIONS:**

All the General Tender and Special Conditions reflected in the Tender Notice shall also form part of this contract.

### **35. LODGING AND BOARDING:**

Suitable Executive accommodation (i.e. Lodging and Boarding facility of good standard) for Attending Superintendent / Officials (minimum 3 Persons) is to be provided by the Yard near / within the Yard premises at Yard's expenses.

### **36. PREQUALIFICATION CRITERIA:**

- a) Tenderer should have their own Dry Dock / leased Dry dock with full repair infrastructure and relevant experience in Dredgers repairs.
- b) The tenderer should have experience in dry dock repairing at least two in number modern Trailer Suction Dredgers of 3000 Cu. M. capacity and above during the last 5 years (Necessary Proof to be enclosed along with Technical bid).
- c) Shipyard Qualification Template (Part-I) and Technical Qualification template (Part-II) to be filled enclosed and necessary documents to be attached as per **Annexure –I**. The bidders will be qualified based only on the Technical Qualification template (Part-II). The Categories of Shipyards are classified as follows:  
**Category A**- Vessels up to 100 m length such as Offshore Support Vessels, Platform Supply Vessels, AHTSVS, Pax vessels up to 400 Pax capacity etc. (Lightweight approx. 2,000 T) (L x B approx. 100 x 18) including all those with Aluminium or FRP hulls.  
**Category B** - Passenger vessels (up to 1200 Pax), Specialized / Research Vessels such as Multi support Vessel, Diving Support Vessel, Geotechnical Vessel etc. of up to 10,000 DWT (Light weight 5000 T)(LX B approx. 150 M X 25 M) including all those with Aluminium or FRP hulls.

**Category C**—Ships under 84,000 Dwt (Handymax Bulk carriers, Kamsarmax Bulk carriers, MR Tankers & LR-I Tankers, Container vessels up to 3,500 TEU) (Light weight about 12,000 T) (L X B approx. 240 X 32.2 M) including those with Aluminium or FRP hulls.

**Category D**- Ships up to 180,000 DWT (Aframax tankers, Suezmax tankers, Capesize Bulk Carriers, Container vessels up to 5,000 TEU) (Light weight 30000 T), (L X B Approx. 290 X 45 M) including those with Aluminium or FRP hulls.

**Category E**- Ships above 180,000 Dwt, VLCC, 5,000 TEU and above Container vessels etc. (light weight 40,000T of LXB of about 333 X 60m) including those with Aluminium or FRP hulls.

- d) Dock slot to be provided as per DCI requirement.
- e) The bidding Shipyard should have positive net worth during the immediate preceding financial year. In case an Indian shipyard does not have positive net worth as required during the immediate preceding financial year, it should provide a Letter of Comfort from Scheduled Banks/reputed lending institutions indicating to provide necessary financial support (at least 50% of the value of the contract) to execute the project as per format prescribed in **Annexure-II**

**37. RIGHT OF FIRST REFUSAL:**

- a) The qualified Indian Shipyards will have a “Right of First Refusal” to enable them to match the evaluated lowest price offered by the foreign shipyard.
- b) The lowest evaluated bidder amongst the qualified Indian bidders (shipyards) will be offered the Right of First Refusal against the foreign shipyard. In case of failure of the lowest evaluated Indian bidder to match the lowest bid of the foreign shipyard, the next higher evaluated Indian bidder will be given the offer and so on.

\*\*\*\*

## SCHEDULE –II

### SPECIAL CONDITIONS

#### **01. TENDER DOCUMENT COST:**

The Tenderer shall deposit cost of tender documents of Indian Rs. 6000.00 (including taxes/GST) into DCI account No: 35833070000014, IFSC code: SYNB0003583, MICR code: 530025003, Syndicate Bank, DCI Branch, Visakhapatnam and to enclose evidence of receipt along with Technical Bid documents, without which Tenders will be rejected.

#### **02. EARNEST MONEY DEPOSIT (EMD):**

- a) The tenderer shall deposit Earnest Money deposit of Indian Rs. 10,02,000.00 (Indian Rupees Ten Lakhs two thousand hundred only) into DCI account No: 35833070000014, IFSC code: SYNB0003583, MICR code: 530025003, Syndicate Bank, DCI Branch, Visakhapatnam and to enclose evidence of receipt along with Technical Bid documents, without which Tenders will be rejected.
- b) Unsuccessful Tenderers EMD will be discharged or returned as promptly as possible, but not later than after the expiration of the period of Tender validity as prescribed by DCI.
- c) The successful Tenderers EMD will be discharged up on the placement of work order and furnishing the Performance security.
- d) The earnest money deposit may be forfeited:
  - I. If a Tenderer:
    - a) Withdraws its tender during the period of tender validity specified by the tenderer in the tender.
    - b) Does not accept the correction of errors
  - II. In the case of a successful tenderer, if the tenderer fails:
    - a) To sign the work order
    - b) To furnish performance security

#### **03. PERFORMANCE SECURITY:**

With in 10 days after receipt of the Work order of award of the Dry dock repairs, the tenderer shall furnish Performance Security to DCI. The proceeds of the Performance Security shall be payable to the DCI as compensation for any loss resulting from the Bidders failure to complete its obligations under the contract. A sum equal to 10% of the accepted value of works shall be deposited by the tenderer by demand draft or by way of irrevocable, unconditional bank guarantee from Scheduled / Nationalized Indian bank as performance security deposit in favor of Dredging Corporation of India Ltd, payable at Visakhapatnam. Alternatively EMD shall be converted as part of Performance security deposit and balance amount shall be with held while settling the yards invoice. Performance security deposit will not carry any interest. The performance security will be discharged by DCI and returned to the tenderer not later than 60 days following the date of completion of the tenderers performance obligations including any warranty obligations.

#### **04. TAXES AND DUTIES:**

- a) All taxes, duties, levies etc., of any kind levied by any Authority (exclusive of GST), shall be borne by the Tenderer and the tendered rates will be deemed to be inclusive of all such liabilities.
- b) Indian Yards shall quote their tendered rates, excluding GST. GST will be reimbursed to Indian Yards, at actuals, on submission of proof of payment by them.
- c) While evaluating the tenders to arrive at Lowest Tenderer (L-1), the basic repair cost quoted by Indian Yards, excluding GST shall be considered.

#### **05. DISCOUNTS:**

Kindly ensure compliance with the following points when the revised / final bids are being offered.

- a) No discount should be mentioned in the Technical Bid.
- b) Any discount offered must be specified as a percentage to the quoted rate and not as a lump sum and should be mentioned in the Price Bid only.
- c) Similar discount should be applicable on all additional items (up to 30%) originating from quoted items or otherwise.
- d) Percentage of discount should not be changed irrespective of amount of work done out of quoted items.

**06. VALIDITY OF QUOTATION:**

The Tenderer should keep open the validity of the tender for 90 days from the date of Price Bid opening. The Tenderer shall also keep the validity open for another 30 days in case a request in writing by DCI is made before expiry of initial validity period.

**07. SUBMISSION OF REPAIR BILL:**

It should be ensured that the repair bill (hard copy in triplicate + One soft copy) complete in all respects (Yard invoice, Work done certificate, DL cum WO and all supporting documents of claims) is submitted within 30 days after completion of repairs by the Yard to our Head Office at Visakhapatnam, for scrutiny and payment.

**08. PAYMENT TERMS:**

Our organization being a Public Sector Undertaking of Government of India, the Corporation has to comply with Government procedures for release of foreign exchange. Our payment terms and conditions are as follows:

- a) **After preliminary scrutiny**, about Fifty percent of the admissible invoice value will be paid within one month after receipt of invoice, complete in all respects, by DCI.
- b) Balance admissible payment will be made within Three months thereafter.
- c) Before releasing final payment after work is completed the yard is required to submit a **No Due certificate** to DCI with out prejudice to the claims raised by the yard before seeking the release of the final bill and the yard not entitled to invoke arbitration in respect of any claim that is not raised before the issue of a No claim or No Due certificate.
- d) Payments shall be made through E-Transfer, so the Bidder shall submit Bank account details along with the tender for Electronic transfer of funds by DCI.

**09. LIQUIDATED DAMAGES:**

- a) In case the completion of the Repair Works of the Vessel is delayed due to any reason whatsoever (except due to major additional jobs and force majeure situations), no payment towards General Service Charges will be made to the Yard for the delayed period.
- b) In case of time overrun, the Attending Superintendent shall finalize the number of days to be reckoned for LD and for Force Majeure (if any) with consent of the Yard.
- c) LD shall be levied for delayed delivery of the Dredger on standing cost of the Vessel value for each day of delay subject to a max. of 10% on the final payable invoice value. LD will be leviable in addition to penalties / disincentive, if any, as stipulated in the tender.

**10. ARBITRATION:**

Should any dispute or difference arise between the Corporation and the Shipyard in connection with this Contract, or as to the rights and liabilities of the parties hereto, it shall be referred to Arbitration. Each party shall appoint an Arbitrator and the Arbitrators so appointed shall appoint an Umpire and the award of the Arbitrators or the Umpire, as the case may be shall be final and binding upon the parties hereto. The Arbitrators shall give a reasoned award. Such Arbitration shall be held at Visakhapatnam, India. It shall be in accordance with provisions of the Indian Arbitration Act, 1996 or any statutory modification or re-enactment hereof. The Arbitrator(s)/ Umpire may from time to time with the consent of the parties, enlarge the time for making and publishing the award.

**11. INCENTIVE AND DISINCENTIVE:**

- a) The Yard shall complete entire scope of dry dock repairs within the stipulated contract period of ---- days (including variation included in Sch-I, clause-30).
- b) There will be an incentive payable to Yard for early completion in delivery @ Rs.1,00,000/- (Rupees One Lakh) per day.
- c) In case, Yard fails to complete the job within stipulated contract period, DCI will levy disincentive of Rs.3,00,000/- (Rupees Three Lakhs) per day of delay.

**12. LEGAL PROCEEDINGS:**

Jurisdiction, for legal proceedings, if any, shall be at Visakhapatnam, Andhra Pradesh, India.

13. All repairs during the Dry-dock will be carried out under the Supervision of IRS. IRS Charges shall be paid by DCI.

14. The bidder will give an undertaking that they have not made any payment or illegal gratification to any person/ authority connected with the bid process so as to influence the bid process and have not committed any offence under prevention of **Corruption Act in connection with the bid.**
15. The bidder shall disclose any payments made or proposed to be made to any Intermediaries (agents etc.) in connection with the bid.
16. \_Yard shall give an undertaking that entire dry dock repairs (including variation of 30%) will be completed within the quoted / contract period.
17. DCI is certified for ISO 9001: 2008 (Quality Management system), ISO 14001: 2004 (Environment Monitoring system). International Safety Management System (Safety Management System) and ISPS code. The Yard and their sub-contractors should comply the applicable requirements pertaining to the above standards while executing works.
18. **AGENCY CHARGES:** Agency husbandry charges (**Details placed at Annexure-III**) are to be engaged in case of foreign yards, if found L-1 in the tender. The charges of Agency/ Husbandry shall be paid at actual cost plus 10 % (mark up). DCI reserves the right to defer / cancel the agency / husbandry services as per requirement. Payment terms applicable as per Sl.No.8 above.

\*\*\*

SCHEDULE – III

MAIN PARTICULARS OF DCI DREDGE – XVII

1.	NAME OF THE VESSEL	:	DCI DREDGE – XVII
2.	PORT OF REGISTRY	:	VISAKHAPATNAM
3.	CLASSIFICATION SOCIETY	:	INDIAN REGISTER OF SHIPPING
4.	BUILDER	:	IHC HOLLAND
5.	YARD NO.	:	CO 1224
6.	LENGTH OVERALL	:	122.00 MTRS
7.	L.B.P.	:	106.08 MTRS
8.	BREADTH MOULDED	:	20.30 MTRS
9.	DEPTH	:	10.10 MTRS
10.	GROSS TONNAGE	:	8049
11.	NET TONNAGE	:	2414
12.	MAIN ENGINES	:	2 x 6L 40/54 MAN B & W with CPP
13.	IMO NO	:	9217292
14.	OFFICIAL NO	:	2876
15.	CALL SIGN	:	VWYA
16.	YEAR OF BUILD	:	2001



**SCHEDULE-V**

(Tenderers are advised to offer their deviations on the tender conditions, if any, along with the tender under the following Performa without fail. In case there is no deviation to the DCI's tender conditions, this Schedule may be submitted with the tender as ***NIL DEVIATION***)

**LIST OF DEVIATIONS**

Tender for Dry Dock and lay-up repairs of DCI Dredge-XVII.

Sl. No.	Clause / SI.No. of Tender condition on which deviation is made	Description of DCI's clause	Description of proposed clause	Reasons for deviation
1				
2				
3				
4				
5				
6				

(Signature of the tenderer with stamp)

Date:

## SCHEDULE – VI

### GUIDELINES TO YARD WITH REGARD TO SUBMISSION OF INVOICES

To facilitate prompt and timely settlement of the invoices of the Yard, following guidelines are issued:

1. The awarded scope of work will be reviewed by Master/ CEO as per actual condition at the time of docking (Ship not required to raise DL cum WO for tender scope additionally). If any Additional jobs / deletions or change in work identified during inspection, the same shall be undertaken by yard on the basis of Additional work Requisition issued by Master / CEO with due approval of Attending Superintendent. After satisfactory completion of works, Yard has to obtain work done certificates (in prescribed format) duly signed by Master/ CEO of the Vessel and counter signed by Attending Superintendent. The original signed work package, additional works are to be submitted in 4 copies along with invoice (ONE ORIGINAL with Original Invoice & 2 COPIES along with duplicate Invoice and ONE COPY to the dredger) to be submitted to DCI Head Office along with a paint guarantee certificate from OEM wherever required. In the circumstances requiring urgent repairs, even letter/fax/e-mail communication/ in lieu of work order will be issued followed by confirmatory work order duly sanctioned by the Competent Authority.
2. Work Done Certificates (WDC) for the Engine side and Deck side, as the case may be, duly signed by the Master or CEO and counter signed by the Attending Supdt., are to be submitted in 4 copies, (one ORIGINAL & 2 COPIES along with Invoice and one COPY to the dredger). Please ensure that on the original of the work done certificate, rubber stamp “ORIGINAL – FOR PAYMENT” should be affixed and on all other copies the rubber stamp “COPY – NOT FOR PAYMENT” should be affixed. The description of job in WDC should be in-line with DCI work scope mentioned in work package. The sample form of WDC is placed at **Annexure-IV**.
3. **Invoice of the Yard for dry dock repairs (in Excel format) may be submitted in triplicate along with the original work done certificate marked as “ORIGINAL – FOR PAYMENT”.** Copies of WDC may be attached with the copies of the Invoice. Photostat copy of WDC or carbon copy duly marking “original for payment”, if submitted with the Original of Invoice will not be considered for payment.
4. Please ensure that one SOFT COPY (CD) of the Invoice in Excel format is also submitted along with the original invoice.
5. Sl. No. in work package (as given in NIT) is DL number in serial. DL number (Ref/Sl. No. in work package) should be clearly indicated on all WDC for verification & easy identification.
6. Scrutiny of Invoice will be made Group-wise. Therefore, Invoice should be raised as per Group in the Work Package and the supporting WDC should be attached accordingly so as to arrive at the total expenditure against each Group.
7. Date of Commencement and Completion in respect of every repair job (Group-wise) may be indicated in the WDC.
8. Details of materials supplied, if any, to the dredger through “Regular Material Requisition (RMR)” raised from the Dredger are to be indexed in tabular form showing the Description, Quantity supplied, etc. and the receipt of acknowledgement by Master or CEO as the case may be and Attending Supdt may be submitted with the Invoice.
9. **Original Passed invoice or Proof of payment & Yard certified copy of Bill** towards purchases, if any, over and above Indian Rs 10,000/- for the purchased items is to be submitted along with the Invoice of the Yard.
10. Details of additional works, if any carried out, beyond the scope of original Work Package, are to be submitted indicating “ADDITIONAL WORKS” and giving full details of additional work order reference DL No. & date, WDC, etc. (Example- ADL (Deck/Engg) No. -001/ Dt.....)

11. Details of repairs if any carried out by sub-contractors of the Yard are to be separately indicated in the WDC with approval of Attending Supdt and ship staff. The same should be submitted along with the Invoice of the Yard.
12. While preparing the invoice, care should be taken to consider the "NOTES" at **ANNEXURE TO FINANCE BID**.
13. Please ensure that WDC do not contain any adverse remarks / observations of MASTER / CEO. Such remarks should be sorted out before vessel leaves the yard. This will avoid nonpayment/ subsequent correspondence and delay thereof for settlement of the Invoice.
14. Please indicate the quoted rates against each amount claimed in the Invoice – Item wise and Group-wise to facilitate easy scrutiny.
15. Details of services rendered by OEM may be submitted along with the **original passed invoice or Proof of payment & Yard certified copy of bill, time sheets** duly signed by MASTER or CEO as the case may be and countersigned by Attending Superintendent, other wise claim will not be entertained. OEM service engineers to be arranged by the yard with DCI approval. The Service engineer charges will be paid to the yard with 10% mark-up (i.e., actuals + 10 %).
16. Cost of materials including paint incorporated in the work as reflected in work done certificate (in case of material purchase of above Rs. 10,000/- value made, supporting vouchers/bills i.e., **original passed invoice or Proof of payment & Yard certified copy of bill** along with proof of payment should be enclosed. Extra 10% on actual material cost only will be paid towards overhead handling / transportation and other incidental charges etc.,

**SCHEDULE – VII**  
**DETAILS OF THE SHIPYARD**  
**(Please furnish copies of documents wherever applicable)**

1. a) Name of the yard with full address including phone/e-mail / fax, etc.  
b) Names & addresses of key persons to be contacted and their qualification, experience, etc.
2. a) Constitution of the firm :  
b) Act under which registered :  
c) Date of commissioning of the firm  
d) Date when dry docking & repairs of ships / dredgers commenced
3. Financial background:  
a) Names & addresses of banks with whom the accounts are held :  
b) Maximum amount of work order carried out on any dredger during the last three years.  
c) Statement of accounts of the firm for the last 3 years with certified published annual report showing the turnover and financial result  
d) Whether the firm avails assistance from any yards / Government / other Agencies with full details
4. No. of dry docks available for taking large size ships / dredgers.
5. Total area of each yard (indicating separately the details of workshop, dry dock, Slipway, etc). Details of the firm indicating various workshop facilities, Fabrication shops, slipway / dry dock for new construction, etc. indicating their dimension and capacity.
6. Availability of bonded warehouse and its location, indicating the total area and facilities available
7. Details of dry dock repairs of dredgers / ships / any other vessels carried out in your yard for the past 5 years indicating the following particulars (Please use separate sheet for each vessel and furnish copies of documents) (Please provide this information only for larger ships / dredgers only)
  - a) Name of vessel
  - b) Name of the owner
  - c) Date order
  - d) Contractual repair period
  - e) Date of commencement of work
  - f) Date of delivery as per contract
  - g) Actual date of delivery
  - h) Classification
  - i) LOA
  - j) Breadth moulded
  - k) Depth moulded
  - l) Draft loaded
  - m) GRT
  - n) NRT
  - o) Suction pipe internal dia.
  - p) Details of dredging equipment (type, make & manufacturer's address)
  - q) Details of Propulsion equipment (type, make & manufacturer's address)
  - r) Details of navigational equipment (type, make & manufacturer's address)
  - s) Details of auxiliary equipment (type, make & manufacturer's address)
8. Availability of Service Engineers of different OEM and manufacturers of various machinery / equipment.
9. Total infrastructural facilities (crane capacity, pumps capacity, flooding time, etc.) owned by you and available at the yard indicating their capacity, make, etc. and place of operation.
10. Details of special tools if any in your yard relevant to dry dock repairs of dredgers

- 11 Details of total man power indicating the qualification & experience of key persons.
- 12 Availability of spares of OEMs at or nearer to the yard.
- 13 How many days notice normally do you need to arrange dry dock repairs of a dredger? Are there any conditions?
14. Do you have facility for emergency dry docking of vessels at short notice? (Please give details)
15. Details & availability of Classification Society near to the yard
16. What are your guarantee / warranty terms for dry dock repairs?
17. What are your general terms & conditions for dry dock repairs of vessels?
- 18 What are your payment terms?
- 19 Names & address (including phone numbers, e-mail etc) of agents for services?
- 20 Standard tariff of your yard for various works
- 21 Do you provide any bank guarantee for guarantee works?
- 22 Shore reception facilities
- 23 Scrap disposal arrangements

**SCHEDULE - VIII**  
**CHECK LIST**

Tenderers are requested to take into account of the following before submission of the tender for dry dock and lay-up repairs of DCI DREDGE-XVII

<b>SI No.</b>	<b>Action</b>	<b>(Yes / No)</b>
1	Please read and understand full set of tender documents	
2	Visit the dredger, if required, and understand the nature of repairs to be carried out.	
3	Sign and stamp all pages of the tender documents by the authorized signatory. Mention name & designation of the signatory on the tender.	
4	Make 2 sets of tender documents i.e. Part-I - Technical Bid and Part-II - Financial Bid (Price Bid)	
5	Technical Bid should contain following: a) A covering letter from the yard stating any issue which has bearing on Financial Bid; List of deviations, if any; Acceptance of all DCI's tender conditions; proposed period of repairs in the dry dock and in afloat condition; availability of dock space; and validity of tender. b) Schedule-I (General Tender Conditions) c) Schedule-II (Special Conditions) d) Schedule-III (Main Particulars of the dredger) e) Schedule-IV (Work Package) f) Annexure to Schedule-IV duly filled in the number of days required for completion of all repairs, etc) g) Schedule-V (List of Deviations, if any) h) Schedule-VI (Guidelines) i) Schedule – VII – Details of yard. j) Schedule – VIII – Check List. k) Undertaking of shipyard l) Shipyard Qualification Template (Part-I) and Technical Qualification template (Part-II) m) Format for comfort letter from Bank. n) Payment receipt in proof of Tender document cost o) Payment receipt in proof of Earnest Money Deposit	
6	Financial Bid should contain the PRICES (Schedule-IV and Annexure to Schedule-IV duly stamped and signed); and Percentage of Discount offered, if any.	
7	Consider 30% increase in scope of work over and above jobs specified in Schedule-IV towards unforeseen jobs.	
8	Rates should be quoted in figures and words in the Financial Bid.	
9	Rates offered shall include all Taxes, duties, etc. of any kind, but excluding GST.	
10	Corrections on the tendered rates should be supported by signature of the tenderer (Clause 03 of GTC).	
11	No COUNTER CONDITIONS are offered. (either in Technical & Price bids)	
12	Put both Technical Bid and Financial Bid in different envelopes and superscribe on the envelope TECHNICAL BID and PRICE BID as the case may be and seal both the envelopes. Put both the above envelopes in another envelope, seal the same superscribe on the envelope "Tender No: DCI/TECH/117/12/2018-19, Date:_____.2018 and due date:_____.2018".	
13	Please ensure the tender reaches the addressee before the closing time of the tender.	
	<b><u>PLEASE AVOID</u></b>	
14	Counter-conditions as it may attract rejection of tender	
15	Mentioning rates in the Technical Bid	
16	Corrections of the prescribed tender documents as it will attract cancellation of tender	

**DRYDOCK REPAIRS OF DREDGE-XVII**

**GROUP-A**

**DRY-DOCK HIRE AND SERVICE CHARGES**

Sl. No.	Description	Qty.	Unit	Unit Rate Rs.	Amount Rs.
1	Dock block preparation as per docking plan	1	LS		
2	Drydock Hire Charges,				
	i) First Day	1	DAY		
	ii) Subsequent		Day		
3	Wharfage		DAY		
4	Assisting for docking and undocking the Vessel (including Tug & pilotage) Est.for two time	2	TIME		
5	Mooring/Unmooring and line handling Est.for 4 times	4	TIME		
6	Cleaning the dock floor –				
	i) First day	1	DAY		
	ii) Subsequent Days		DAY		
7	i) Continuous Shore power supply – AC 50Hz., 3 phase 415V; Est. for 3,000 KWH		KWH		
	ii) Connection & Disconnection Est.for 2 times	2	TIME		
8	i) Cooling Water supply to refrigeration/ AC Machinery (per day per line) 2 ½ Braided hose – 2		DAY		
	ii) Cooling water supply – Connection & Disconnection – Est.2 line x 2 times	4	TIME		
9	Sea water supply to ballast tanks	500	TON		
	Sea water supply – Connection & Disconnection of hose (per hose per time)	4	TIME		
10	Fire Patrol (Rate per head = 8 Hours per Shift.)	6 x No.of days	Rate/head/Shift		
	Est. for 3 men per Shift x 2 shifts a day				
11	Fire line to be kept charged (3 bar) all the time when the vessel is in dry-dock.(2 lines)		DAY		
12	Fire line – Connection & disconnection; 2 Hose X 2 times	4	NO		
13	a. Fresh water supply from shore line – Est.for 20 tons per day	20 x No.of days	TON		
	b. Fresh water Connections and disconnections. Estimation per connection.	20	Rate/Time		
14	Galley refuge removal and disposal		DAY		
15	Gas free inspection by Shipyard Personnel	15	Tanks		

	Gas free inspection by Govt. Authorised Inspection, Permits for	3	Visit		
16	Crane charges for handling Ship's provision/stores.				
	i) up to 10 tones capacity	40	HOUR		
	ii) above 10 tons	40	HOUR		
17	Fitting wooden plugs with carry away pipe on scupper pipes	30	NO.S		
18	Providing Ship to shore telephone for local calls; Est. for 1 phone		DAY		
19	Connection & Disconnection of cables	2	TIME		
	Est. for 1 phone x 2 times				
20	Compressed air supply from shore main:				
	i) Connection & disconnection,per line per time; Est.2 times per one line	2	TIME		
	ii) Compressed air supply per hose for 8 hrs.shift	1 x No.of days	Shift		
21	Carry away pipes to be provided on all sea discharges to prevent flow on shipside.	10	Nos		
22	Sewage Disposal Sanitary carry away pipes from vessel's toilets, bathrooms are to be fitted for entire period of docking.	No.of DD Days	DAY		
	OR				
	Collection of sewage waste into shore tank and disposal on load basis (3cu.m per load).	30	LOAD		
	<b>TOTAL FOR GROUP A</b>				



**GROUP-B****SURFACE PREPARATION, CLEANING & PAINTING**

Sl. No.	Description	Qty.	Unit	Unit Rate Rs.	Amount Rs.
	<b><i>CLEANING &amp; PAINTING</i></b>				
1	<b><u>SURFACE PREPARATION AND PAINTING OF HULL EXTERIOR</u></b>				
	Sigma/ International (Akzo nobel)/ Chugoku/ Hempel/ Jotun paints may be used.				
	Paints should be procured by the yard on behalf of DCI. (Actual Cost of Paints + 10% will be paid by DCI). Original documents to be provided as proof for reimbursement by DCI				
	iii) Total cost (estimate) of paint is to be indicated separately (Original Paint procurement Vouchers are required to produce for actual Quantity of paint consumption, for settlement of Yard's Invoice). (Note: Quoted Paint Cost will not be considered for evaluation of Tenders for arriving L-1 bidder.)				
	iv) Only Tin free antifouling SPC is acceptable.				
	a) i) Hard scrapping marine growth (under water area) upto light load line including sea chest, bow tunnels and kort nozzles	3750	SQ.M		
	ii) Copper slag hard sweeping to SA 1.0	1500	SQ.M		
	b) Copper slag blasting up to bare metal (SA 2.5) of vertical sides in mid ship area, aft bottom area, rudder area between ship side rails and other isolated locations of complete paint breakdown areas including old keel block area, kort nozzle, overflow duct, rudder, (Note : Cost shall be inclusive of arrangements for proper care to prevent clogging of hydraulic pipes and various openings.)	2250	SQ.M		
	c) High pressure water washing (150 bars) to remove barnacles and Sea growths.	5760	SQ.M		
	d) Water washing ordinary (after primer) including all decks & accommodation.	5760	SQ.M		
	e) Painting of Topside				
	i) Touching spot blasted areas with Epoxy Primer 50 Mic.DFT	800	SQ.M		
	ii) Other areas to be coated with epoxy HB paint at 150 Mic. DFT.	900	SQ.M		
	iii) Apply finish coat of Topside Black (Re-coatable Polyurethane) 75 Mic. DFT.	1800	SQ.M		
	f) Painting of under water area				
	i) Touch up spot blasted areas with Epoxy Primer at 50 Mic. DFT	1750	SQ.M		
	ii) Apply Tar Free Epoxy at 125 Mic. Dft at spot blasted areas only.	1750	SQ.M		

	iii) Apply Two coats of SPC. A/F (Tin based) of 125 Mic. Dft. Each Total 250 Mic DFT. On all underwater areas	9500	SQ.M		
	<b>g)</b> Painting of ship's name and IMO Number in Hindi and English at P & S bow and stern and port of registry at stern with 2 coats of white paint	1	LS		
	<b>h)</b> Painting plimsol marks at midship P & S, Bow thruster markings, and draft marks up to full load line at FWD, mid ship and aft of P & S sides with 2 coats of white paint.	1	LS		
<b>2</b>	<b>Painting of all External Decks.</b>				
	a) Remove oil, grease and foreign material by chemical cleaning. (Chemical Supply - by Yard)	200	SQ.M		
	b) High Pressure F/W washing(100 bar)	2750	SQ.M		
	c) Copper Slag Blasting all areas to SA 1.0	2000	SQ.M		
	d) Copper Slag Blasting SA 2.5 (if, Required)	750	SQ.M		
	e) Hydro blasting the decks equivalent to SA 2.5 (if Copper Slag blasting is not possible)	750	SQ.M		
	F/W washing before applying primer (1 coat) & paint (2 coats)	5500	SQ.M		
	f) Apply Epoxy Primer 50 mic. DFT	2750	SQ.M		
	g) Apply two coats of surface tolerant epoxy green 125 mic. DFT each. (Total 250 Mic.)	2750	SQ.M		
<b>3</b>	<b>Painting of Hopper coaming and other deck fittings including Crane, Gantries, hopper beams and Bottom Door Cylinders.</b>				
	a) Remove Oil and grease by Chemical Washing (Chemical Supply - by Yard)	200	SQ.M		
	b) High Pressure (150 b) F/W Washing	2000	SQ.M		
	c) Copper Slag blasting to SA 1.0	2000	SQ.M		
	d) Chipping (as required)	200	SQ.M		
	e) Scrapping (as required)	100	SQ.M		
	f) Power brushing (as required)	200	SQ.M		
	g) power tooling (as required)	100	SQ.M		
	h) Apply one coat of epoxy primer 50 mic. DFT.	750	SQ.M		
	i) Apply one coat of Chloro rubber primer/ Vinyl anti corrosive primer- 75 Mic. DFT	2000	SQ.M		
	i) Apply one coat of acrylic finish 40 Mic. DFT of Buff Colour.	2000	SQ.M		
<b>4</b>	<b>Painting of Super Structure</b>				
	a) High pressure (100 bar) F/W washing	1500	SQ.M		
	b) Chipping & power brushing	700	SQ.M		

	iii) Apply Epoxy Primer 50 Mic.DFT.	1500	SQ.M		
	iv) Apply Chloro Rubber Primer 75 Mic. DFT/ Vinyl anti corrosive primer- 75 Mic. DFT.	1500	SQ.M		
	v) Apply Acreylic white finish two coats	1500	SQ.M		
	vi) <b>Funnel:</b> Washing, Scraping, wire brushing, cleaning and painting with heat resistant black paint.	300	SQ.M		
	vii) scrapping, chipping & painting of exhaust pipes (2 M/E & 04 AUX ENGINES) with HR aluminium paint	200	SQ.M		
	viii) MAIN MASTS (INCLUDING WALK-WAYS, PLATFORMS, monkey-LADDERS,cable trays), FORWARD MASTS (LADDERS, cable trays), : scrapping, chipping, one coat of Epoxy Primer 50 Mic.DFT, one coat of paint (Buff / Deck Green / Black).	1	L/S		
	NOTE: Allow plug of scuppers, Cover anodes, echo sounder, DLM transducers, underwater transducers etc., with grease in consultation with shipstaff while undertaking steel renewals / blasting and painting, etc.				
5	<b>Sea Chests, Bow Tunnels and sea water lines</b>				
	a) <u>Sea Chest:</u> Port & Stbd. Main sea suction chest (fwd machinery space), port & Stbd Jet P/P sea suction (pump room), Fwd & Aft Bow thruster tunnel, p&s dilution valve suction (fwd machinery space) to be hard-scrapped, chipped, cleaned (As per Paint	550	SQ.M		
	Copper slag blasting up to bare metal (SA 2.0) for above	550	SQ.M		
	b) (i) <u>Filter Casing:</u> Port & Stbd. sea suction filter and Jet pump sea suction filter casings to be hard-scrapped, chipping / power-tooling, cleaned and painted (as per paint scheme).	150	SQ.M		
	(ii) R/R of Filter	4	Each		
	c) Sea gratings removed, cleaned, chipped and painted, corroded & broken J-hooks (SHIP SUPPLY) to be renewed.:				
	(i) Port & Stbd main sea chest gratings & P&S dilution valve grating	16	NOS		
	(ii) Port & Stbd Jet Pump sea chest gratings.	18	NOS		
	(iii) Fwd & Aft bow thruster tunnel gratings to be removed, cleaned, chipped and painted, corroded & broken J-hooks to be renewed.	4	NOS		
	Note: Renewal of grating will be admitted as per the rates quoted at Group-C				
	d) (i) MSW interconnection pipes(dia 650 mm) Dismantling, choke clearing including mud, muck & barnacles & refitting (job includes removal, cleaning & refitment of existing VJ couplings)	50	MTRS		
	(ii) Chipping & Mechanical cleaning & Painting of MSW interconnection pipes (out side = OD 650 mm)	950	SQ.M		

	e) Sea water filter: P & S main sea water PP filters to be cleaned, Chipped, painted & fitted back.	6	NOS		
6	<b>ANCHOR CABLE:</b>				
	(a) Anchor cable disconnected from ship, to be ranged in the dock floor, water washed with F.W. high pressure, scrapped, chipped, cleaned and applied two coat of Bitumastic paint on anchor cable and anchor and restore the cable after marking with seizing wire and paint. Cables to be re-connected after all repairs.	3	Rate per Cable		
	(b) Anchor cable to be calibrated and six copies of calibration report to be submitted to Ship staff & IRS.	3	Nos		
	c) i) Opening up and overhauling the joining shackle and to be fitted back after overhaul.	10	Nos		
	ii) Renewal of joining shackles	15	Nos		
	(d) i) Removing the anchor D' shackle and carryingout necessary repairs on pin. Same to be fitted back to the anchor (excluding repairs)	3	Nos		
	ii) Building up with M.S. electrodes, if required.	20	KG		
	(e) i) Building up of anchor chain guide track as well as lips of hause pipe inner end/outer ends including	60	KG		
	ii) Renewal of anchor chain guide bars	120	Kg		
	iii) Port & Stbd anchor chain spurling pipe lips to be cropped and renewed	100	Kg		
	(f) All three anchors with swivels are to be chipped, cleaned, calibrated and painted. (under IRS Surveyor inspection) (IRS fee- DCI account)	3	Nos		
	(g) dismantling of anchor shank, crown and swivel and servicing.	3	Nos		
	h) Renewal of anchor crown connectin pins	40	Kg		
4	<b>CHAIN LOCKER SURFACE PREPARATION AND PAINTING.</b>				
	3 Nos. Lockers 40 cub.mtrs each				
	a) Removing and disposing mud and muck from the chain locker to shore dustbin and disposal.	3	TON		
	b) Scrap, wire brushing and cleaning and throwing to the shore dustbin and applying one coat of Epoxy primer 50 Mic. DFT and one coat of HB Black 50 Mic. DFT.	250	SQ.M		
	c) Anchor flushing Globe valves Dia 50 mm to be removed, inspected, cleaned, valve seat & Lid to be skimmed & lapped, complete vale to overhauled, pressurre tested and fitted back in position with new bolts & nuts & joints. No-leak trials to shown to ship staff / IRS.	4	NO		
	d) Chain Locker hand pumps forward and aft to be overhauled, defects noted if any, to be rectified.	3	NOS		

5	<b>P/R, E/R, FWD Machinery &amp; STEERING COMP. BILGES, DREDGE Pump Wells and TANK TOPS:</b>				
	a) Bailing out water, Oil, mud, muck and sludge and to dispose off from bilges to shore dustbin.				
	i) Removal of Sludge	5	TON		
	ii) Removal of oil / oily water.	10	TON		
	ii) Removal of Mud & muck, oily water.	10	TON		
	b) Scrap, chip, Power brushing / Mechanical chipping and cleaning bilges with cotton rags & chemical(yard supply) and applying one coat of epoxy primer at 50 MIC DFT followed by HB Black 100 Mic. DFT. (2000 Sq.M)				
	i) Scrapping	400	SQ.M		
	2) Chipping	400	SQ.M		
	3) Power Brushing / mechanical chipping	1500	SQ.M		
	4) Cleaning of bilges with chemical( Yard supply)	2000	SQ.M		
	5) Applying one coat of epoxy primer at 50 Mic DFT	1200	SQ.M		
	6) Applying one coat of HB black 100 Mic DFT	2000	SQ.M		
	Note: the debris / mud / muck / oily water / water / sludge / scrap generated during surface preparation, repairs & cleaning will not be considered or paid extra, as the same to be disposed off by yard only for doing those related jobs				
	c) E/R, Pump Room Bulk head including side bulkheads, hanging tanks, Deck head to be scrapped, power brushing, chemical cleaning (Chemical Yard supply), F/W Washed, touch up with primer and finish coat of acrylic White at 40 Mic. DFT.	4000	SQ.M		
6	<b>F.W. TANKS/BALLAST TANKS / DIRTY OIL TANK / VOID SPACES ETC.:</b>				
	All jobs as required are to be carried out by the Shipyard.				
	a)Opening and boxing back of manhole cover of tanks with new joints/gaskets and bolts and nuts (joints / gaskets / bolts & nuts- yard supply), including chipping and painting of cover.	30	No.		
	b) Gas free inspection of the tank by Govt. Inspector and providing Gas free certificate for man entry in triplicate.	20	NO		
	c) Bailing out water/ oil, removal of mud muck etc., from the tank and to be disposed off to shore / oil drum after draining the tank by opening / draining plug. After completion of repairs, the drain plug.				
	i) Removal of Dirty Oil/oily water / sludge.	5	TON		
	ii) Mud and muck etc.	15	TON		

	d) Hard scrapping, wire brushing, spot chipping and cleaning/mopping the tank for surveyor's inspection (including disposal off debris generated etc.) preparing chemical cleaning & mopping the oil/sump tanks.				
	i) F/W Tank/ Ns. 8, 9, 10 &11.	475	CuM		
	ii) Ballast tanks 1 & 3	914	CuM		
	iii) M/E sump (26 & 27)	21.2	CuM		
	iv) FO Tanks & LO Tanks	950	CuM		
	vi) Dry Tanks	600	CuM		
	vii) Removing & refitting plugs including cementing	40	NOS		
	e) Pressure testing of the tanks and showing to Surveyors for inspection.(Minimum charge / tank may indicate)	1350	Cu M		
	f) i) Scrapping, chipping, power brushing & FW cleaning of Buoyancy space ( including side bulkheads, floor, deck heads)				
	Scrapping	500	SQ.M		
	chipping	300	SQ.M		
	power brushing	800	SQ.M		
	FW cleaning	2000	SQ.M		
	ii) Applying two coats of paint (buff) in buoyancy space.	2000	SQ.M		
	g) F/W tanks to be painted with pure epoxy solvent free good grade paint.	475	Cu M		
	h) Surface preparation of tanks (including disposal of debris generated), as required				
	i) manual chipping	100	Sq.M		
	ii) Scrapping	100	Sq.M		
	iii) wire brushing	100	Sq.M		
	iv) power brushing	100	Sq.M		
	v) LP washing	400	Sq.M		
	vi) chemical cleaning (chemical yard supply)	100	Sq.M		
	vii) FW Mopping	100	Sq.M		
	l) Fabricate & supply manhole doors of standard sizes as per requirement including drilling, tapping & machining. Finished product weight will be considered	500	Kgs		
7	<b>BUFFER TANKS</b> - Spot chipping, scrapping, wire / power brushing and removing residue to shore and preparing the tank for Surveyor's/ship staff's inspection.				
	a) Fard m/c nery space, Total Tanks capacity: 25 cu.m.	25	CUM		
	b) Engine room Total Tanks capacity: 20 cu.m.	20	CUM		

	c) Opening and boxing back of manhole cover of tanks with new joints/gaskets and bolts and nuts (joints / gaskets / bolts & nuts- yard supply), including chipping and painting of cover.	4	NO		
8	Removal & renewal of shipside <b>aluminum anodes</b> (anodes ship supply)	160	NO		
9	<b>Center keelson (Cap. 482 cum.)</b>				
	a) Bailing out sand from keelson	5	TON		
	b) Cleaning with cotton rags & dried and presented for survey.	1000	SQ.M		
	c) Scrapping	250	SQ.M		
	d) Power brushing	250	SQ.M		
	e) FW mopping	1000	SQ.M		
	c) If required one coat of paint	1000	SQ.M		
10	<b>Hopper Space:</b>				
	a) Removing mud, muck from inside hopper around bottom door coaming etc and disposing off ashore& hosing down.	50	TONS		
	b) Removing mud, muck from inside bottom door pantoons etc and disposing off to shore& hosing down.	10	TONS		
11	<b>Skeg</b> to be pressure tested and identify the leaks. Any repairs to be attended as per Gr-C steel renewal rates.	1	L.S		
	<b>TOTAL FOR GROUP B</b>				

**GROUP – C****STEEL PLATE RENEWALS**

Sl. No.	Description	Qty.	Unit	Unit Rate Rs.	Amount Rs.
	<b>STEEL PLATE RENEWAL :</b>				
	Steel plates renewal includes associated beams, angles, channels, flats, bars, rods, stiffeners, etc., which are wasted as per UTG report and as marked by Ship staff, or by Surveyor. The rate must be inclusive of staging with one coat of primer. All plates must conform to Lloyds' Grade "A" Steel. (consider Specific Weight of steel <b>7.85 gms / cub.cm</b> ).				
1	Shell plate above water level	5	TONS		
2	Shell plate below water level	10	TONS		
3	Hopper longitudinal & transverse bulk heads	20	TONS		
4	Hopper beams	10	TONS		
5	Main deck, hopper deck & other weather decks	10	TONS		
6	Tank internals, confined places & centre keelson	10	TONS		
7	Hopper coaming & corners	10	TONS		
8	Renewal of Steel on Hopper coaming Deck (Steel Grade : DH36) , if required Plate thickness Approx.28mm	1	TONS		
9	a) Welding doublers (80%)	1	TONS		
	b) Off fair and refit (0.5%) 50%	1	TONS		
	c) Fair in place (0.5%) 50%	1	TONS		
	d) Steel renewals pertaining on weather tight doors, Air vents, port holes, door coamings, various deck openings, stiffners, ladders, monkey ladders, ladder supprting side plates etc	3	TONS		
	e) Renewal of Chequered plates (8mm)	1.5	TONS		
	f) SS mesh for Air Hoods with side retaining plates	2	Sq Mtr		
	Note: Rates for Pipes for Air hoods will be as per Pipe renewal rates at Gr- G				
10	building up the pitted spots of plates/ wasted welding areas by low hydrogen electrodes (yard supply) and levelling by grinding.	50	Kgs		
11	Inspect Shiplside guide rails on staging, clean the rails, take gauging between the rails and each side rail. Build up wherever required with terroweld DMS welding electrodes after prehealing the rails. Ground the surface.	600	Kgs		
12	UTG readings to be taken on the following structures (or) wherever required to be done as per instructions of IRS / superintendent / S.S: report to be submitted in Triplicate.	6000	POINT		



	i) Hopper bulkheads / ship's hull and hull stub pipes				
	ii) Area around and on the centre keelson.				
	iii) Deep loading pipes, manifolds and suction / discharge pipes				
	iv) Jet discharge pipe in hopper, suction / discharge pipes in pump room				
	v) Other areas as required.				
13	Renewal of railing / guard rail/ stanchians				
	i) GI Pipes-C class Size:				
	a) Dia25mm-32mm	50	MTRS		
	b) Dia 40 45mm-50mm	50	MTRS		
	ii) MS rod Size: Dia 18 to 25mm	50	MTRS		
	iii) Renewal of stanchians - Standard size - 100 x 1200 x 20 mm	50	nos		
14	Renewal of Air trunking with GI Sheeting (min. 2.5mm thk) including flanges, new joints & support frames, removal & refitment of Flap system. All consumbles and materials yard supply.				
	i) 1.5mtr x 1.5mtr cross section line	10	MTRS		
	ii) 40cm x 40 cm cross section line	10	MTRS		
15	Steel renewal on STP Tank				
	i) Existing STP unit tank found thinned down and corroded. STP tank to be fabricated / renewed as per the drawing / sample with all stub pipes, mountings and all connections as required.	2	TONS		
	ii) Inner surface of the tank to be coated with synthetic polymer coat as per OEM Specification.	25	Sq.M		
	Note: OEM or Authorized firm may be engaged to carryout above job, if required.				
16	Hydrophore Tank in FWD machinery Room : Make:HUCH GMBH,Capacity: 500 Ltr, Pressure : 6 Bar, Approximate Dimensions : Outer Dia : 670 mm Height :1300mm: New tank tobe fabricated as per insitu measurements and existing connections. All connections & necessary fittings / mountings are to be made as required. After fabrication, the tanks tobe iinstalled, commissionind and pressure tested to the required pressure and sucessful trials to be shown to the ship staff.	1	LS		
17	Rate for purchase of ferrous/steel/machinery scrap generated during DD repairs including steel renewal is payable to DCI				
	i) Ferrous Scrap		Per Ton		
	ii) Non-Ferrous Scrap		Per Ton		
	<b>TOTAL FOR GROUP – C:</b>				

<b>GROUP-D</b>					
<b>BOTTOM DOORS, UPPER DOORS &amp; OVER FLOW DUCT</b>					
Sl. No	DESCRIPTION	QTY.	UNIT	Unit Rate Rs.	Amount Rs.
	All rates must be inclusive of staging				
1	<b><u>BOTTOM DOORS</u></b>				
	All rates must be inclusive of staging				
	a) Conical part of bottom doors-22 nos to be lowered on the wooden blocks after removal of 3 nos. lock pins (arrestors) and 9 nos. of bolts from the main stem of each door.All doors to be checked for any deformation and identify repairs which are required to be carried out. Wooden blocks are to be provided by Yard and Quoted Cost must be inclusive of wooden blocks)	22	NOS.		
	b) Fin guidese clearance to be checked. If found more, guides to be renewed and guide clearances adjusted after aligning the bottom doors (i) For checking & clearance adjustment	22	DOOR		
	(ii) guides renewal	500	kg		
	(iii) Insitu build up & Grinding of Fin Guides as required, minimum working clearances / limits to be maintained as per shipstaff instructions.	100	kg		
	c) Bottom door rubber packing to be renewed after removing the tension belt. The tension belt is to be fitted back and secured in place after renewal of bottom door rubber packing (Rubber packings – ship's supply).	22	NO		
	d) i) All welded joints on the main stem and bottom door cone including worn-out areas of palm/flanges to be checked for cracks by DP/UT test (to be quoted below) and cracked portions gouged and re-welded. ( minimum 3 runs of weld)	200	RMT		
	(ii) D.P. / UT Test.	50	RMT		
	e) The wasted and thinned down portion of bottom door cone and steel plates around bottom door opening on the ship's hull to be renewed. Alignment to be checked and corrected as required.	3	TON		
	f) i) To cut opening as required on the bottom door cone to facilitate removal of mud. The bottom door cone to be cleaned of mud and opening closed by rewelding the same plate. Size of opening 500 mm x 500 mm	22	DOOR		
	ii) Removal of mud	2	TON		
	g) Bottom doors guides at hopper deck level (inside hopper) inside cylinder housing worn out and doors twisting excessively causing frequent damage to gland seal. Guides to be renewed. Two in the housing and one in the main stem. Rates inclusive of staging as required.	7	door		

	h) Palm bolts to be renewed @ 9 Nos. bolts per door (22x9) . Bolts ship supply	22	DOOR		
	i) Tension belt of bottom doors to be renewed, if necessary. Mat- MS	5	NOS		
	j) All bottom doors are to be tested individually with hydraulic power packs and chalk test to be carried out for perfect contact of seal with it's seating area and carrying out repairs as necessary.	22	NO		
	k) To cut openings as required on the box surrounding bottom door opening to facilitate removal of mud. Box to be cleaned of mud and openings closed by rewelding the same plates. Size of openings: 500 mm x 500 mm; 2 Nos. per door.	22	NO		
	l) Building up of cast steel portion of bottom doors and seat area on the hull by low hydrogen electrodes.	400	KG		
	L&T 2B/CPHFD 011 or equivalent electrodes of Yard supply.				
	m) Bottom door stem to be renewed with ship supplied spare and round doubler plate fabricate & welding to be done. Round Doubler plate fabrication and welding as per Steel renewal Gr-C,	2	Stem		
2	<b><u>UPPER DOOR REPAIRS:</u></b>				
	a) upper doors to be opened from their hinge and links. Doors to be lowered on dock floor and fit back on completion of repairs with ship supplied pin & bush.	22	door		
	b) upper door hinge and link pins to be calibrated and report submitted	22	door		
	c) upper door connecting "D" shackle ( 4 nos) ( ship supply) to be renewed	22	door		
	d) upper door plates renewal including internal stiffeners, hinges & pins etc	1	tons		
	e) After repairs all 22 nos. upper doors are to be tried out for proper closing.	22	NOS		
	f) upper door hydraulic cylinder ( removal of cylinders covered in Gr-H, SI No: 13e) along with chains to be removed, after disconnection chains near the door. Chains to be ranged in yard-floor for inspection by shipstaff. Chains / tie rods length to adjust to eliminate the gap between door hull in closed position as per ship staff instructions.	22	Nos		
	g) build-up and machining of tie-rods, pin housings connecting the chains	100	Kg		
	h) upper door cylinder holding eye (welded on bottom door stool) enlarged, same to be cropped & renewed as per original size/drawing. Pin to be renewed with new locking plates & securing screws/bolts	200	Kg		
	i) all moving mechanical indicators/pointers to be checked for proper doors' open/close indication. Adjustments to be done, as required as per shipstaff instructions.	22	Nos.		
3	<b>OVER FLOW DUCT</b>				

a) UT gauging to be done on fixed and moving parts and as per UTG report, the duct is to be renewed.	100	Points		
b) Removal & refitting of overflow duct along with hydraulic cylinder, platforms and platform fittings, other accessories and fixed and moving guides	1	L.S		
c) (i) Steel renewal on adjustable overflow duct (Cylindrical) after removing existing duct from its hydraulic cylinder and attachments. Plate Thickness- 16 mm (To be done as per UTG Report)	2500	Kgs		
(ii) Steel renewal on fixed portion of overflow duct (passing through centre keelson). The work to be carried out under IRS supervision. Plate Thickness-16 mm thick (To be done as per UTG Report)	3000	Kgs		
d)The overflow duct lip seal to be removed after opening 48 Nos. nuts & bolts and holding down flange segments.The new lip seal to be fitted and all the holding down flange segments, nuts and bolts are to be fastened.(seal & retaining ring ship supply). SS Bolts & Nuts yard supply.after completion, overflow duct to be shown satisfactory trials	1	No.		
e) 3 Nos. outer guide pipes (300mm Dia) & 3 Nos. inner guide pipes to be gauged, cropped and renewed. (Renewal of pipes to be done in one piece. No joints are allowed)	1000	Kgs		
f) Bottom flange (inside the overflow duct) supporting the hydraulic cylinder to be renewed with new bolts & nut- Flange - Ship Supply	150	Kg		
g) Cross brackets inside movable duct portion (supporting the bottom flange above) to be cropped & renewed as required	200	Kg		
h) Tripod pipe-supports (for securing the triangular platform) to be renewed as required with new flanges, nuts & bolts (Approx. Dia 300mm)	3	Mtr		
<b>TOTAL FOR GROUP – D:</b>				

**GROUP-E****PROPELLERS, RUDDERS, BOW THRUSTERS & CPP SYSTEM**

Sl. NO	DESCRIPTION	QTY.	UNIT	Unit Rate Rs.	AMOUNT Rs.
1	<b>PROPELLERS:</b>				
	Controllable pitch propeller (make-LIPS, type-86*F5/4, blades-4)				
	a) Propeller shaft rope guard to be inspected. If required, rope guards to be fabricated & renewed as per sample / drawing / shipstaff instructions.	300	KG		
	b) Port and Stbd. propeller shaft drop to be taken and recorded (Before & After), including removal & refitment of rope guard.	2	NO.		
	c) P&S Propeller blades to be removed from the Hub and fitted back with new 'O' rings. Tighten the holding bolts to required torque. After completion of repairs, satisfactory trials to be shown to ship staff (Seals/O-rings ship's supply).	8	NO		
	d) Propeller blades to be hardscapped for marine-growth, cleaned and polished by buffing, blade edges to be DP/MPI tested for any cracks/abnormality and one coat of oil to be applied	8	NO		
	e) Propeller hub to be dismantled, cleaned, inspected, overhauled and hub to be pressure tested, DP/MPI tested & polished and assembled back with new seals / 'O' rings. Tighten the holding bolts to required torque. After completion of repairs, satisfactory trials to be shown to SS / IRS. (Seals/O-rings ship's supply).	2	NO.		
	f) Port and Stbd propeller blade tip clearance to be taken and recorded.	8	NO.		
	g) To install wire winders and Net cutters ( yard supply) (1 wdr + 1nc = 1 Set)	2	Sets		
	h) Skimming of chrome liners (P&S)	2	SET		
	i) Stern oil from both the Stern tube to be drained and new oil to be taken in (Ship supply)	1	LS		
	j) <b>Aft Stern tube</b> (Make: LAGERSMITH) seals to be replaced in-situ with new seals supplied by DCI under the supervision of OEM.	2	Nos.		
	k) Telegraph position and pitch indicator situated on bridge and ECR panel and mechanical in engine room not matching together (Port & Stbd). CPP Electro-pneumatic pitch control system to be thoroughly checked, inspected and necessary adjustment as required to be done, tuned and satisfactory sea trials to be given in the dock. (Spares – ship's supply). NOTE: OEM SERVICES TO BE ENGAGED BY YARD. IF REQUIRED.	1	LS		
2	<b>Oil Distribution (OD) box (make-LIPS, H03992/95), Type-VL 80-C/ 4C-3</b>				

	P & S CPP OD box to be dismantled, inspected, thoroughly cleaned, completely overhauled and offered for survey including push pull rod.. If any defects found during inspection, same to be rectified. Potentiometer to be renewed (ship supply). After survey / inspection / overhauling all parts to be assembled and fitted back in position, Linkages to be adjusted. (spares – ship's supply).  NOTE: OEM SERVICES CAN BE ENGAGED BY YARD	2	NO		
3	<b><u>RUDDER / STEERING:</u></b>				
	Free hanging Rudder (make-Bekker, type-NC-2900/415/K-1, oil filled)				
	a) Port and Stbd.rudder bottom plug to be opened and checked for water. Plug to be fitted back after pressure testing and cemented after flushing rudder space with yard supplied fish oil	2	NO		
	b) Port and Stbd.rudder drop and jumping clearances to be taken and recorded (Before / After).	2	NO		
	(c) Port & Stbd Rudder to be unshipped, seals and neck bushes to be renewed, liner etc., to be renewed. rudders to be fitted back after all repairs and satisfactory trials to be shown to ship staff / IRS.	2	NO		
	d) Mavhining of liner, if required, to the specified clearances	2	NO.		
	(e) Greasing passage to rudder trunk to be cleared.	2	LS		
	(f) Steering Gear link bearings / swivel bearings and pins to be inspected/calibrated.Necessry repairs on tiller arm pin holes and pins to be done as instructed by Ship staff / Supdt. (All spares Ship supply)	2	set		
	g) Steering gear cylinders to be disconnected, dismantled, overhauled, seals to renew (ship supply), pressure tested, and fitted in position. Satisfactory trials to be shown to ship staff.	2	Nos		
4	<b><u>BOW THRUSTERS:</u></b>				
	(make- Lips, type-FT 175				
	a) Fwd. and Aft bow propeller to be cleaned, buffed and polished	2	NOS.		
	b) Fwd. and Aft bow propeller tip clearances between tunnel to be taken and recorded	2	LS		
5	<b><u>KORT NOZZLE:</u></b>				
	Port and Stbd. Kort nozzle drain plugs to be opened, flushed / cleaned with water, pressure tested, after repairs, fish oil to be applied and plugs to be fitted back and cemented. During pressure testing, any defects found same to be attended as per tender rates.	2	NO.S		
	<b>TOTAL FOR GROUP - E</b>				

**GROUP-F****ENGINE ROOM MACHINERY**

Sl. No.	DESCRIPTION	QTY.	UNIT	Unit Rate Rs.	Amount Rs.
1	<b>OVERHAUL OF MAIN ENGINES (15000Hr routine) MAN B&amp;W 6L 40/54; 550 RPM; 3900KW -</b>	2	No		
	<b>Note: Renew the parts as required during overhauling with ship supplied spares. Any spares not supplied by DCI, may please be arranged by Yard for timely completion of repairs.</b>				
	a) Measure and record alignments between engine and gear box, gear box and propeller shaft, bearing clearances, crank web deflections in afloat condition in the presence of the vessel engineer and readings to be submitted to CEO	2	Engine		
	b) After complete overhauling of the engine satisfactory full load trials are to be shown to CEO/ IRS. All readings / clearances as per manual are to be recorded and report submitted to CEO.	2	Engine		
	c) Inspection of foundation bolts, tie rods, crank web counter weight bolts / nuts and tightening to the required torque and hyd. Pressure as per manual and record.	2	Engine		
	d) Crank case safety valves inspection and overhauling for ease of movement and parts to renew as required	2	Engine		
	e) Removal and fitment of all connections after inspection and repairs – such as inlet, exhaust manifold, lub oil, fuel oil, CW pipes, air pipes and other mountings etc as required.	2	Engine		
	f) Check rocker arm bearing bushes, Rotocaps and overhaul and renew if required. Inspection of valve gear cams, drive rollers, push rods, roller tappets and tappet guides and renew if required.	2	Engine		
	g) Removal and fitment of cylinder heads, overhauling of complete cylinder head, chemical cleaning (chemical yard supply) and pressure testing, cooling water spaces clearing, machining / grinding of valves, valve seats and exhaust valve cage landing area as required and assembly (Special care to be taken for fuel valve insert landing surface. Water should not leak from insert during pressure test at 6 bar). Renewal of parts as required <u>with ship supplied spares</u>	2	Engine		
	h) Taking out piston from connecting rod, measuring gudgeon pin and bush clearances. Complete piston to dismantled, cleaned, inspected and overhauled. During inspection, any defect observed, same to be renewed/ repaired/ rectified. After completion of overhaul, same to be assembly back.	2	Engine		
	i) Piston grooves, shroud clearances etc., to record and overhaul Non- return valves & oil passages to clean, cleared and assembly back.	2	Engine		

j) Engine both sides flexible couplings alignment (with propulsion gearbox & increase gearbox) check & correct, in afloat condition and values to record .	2	Engine		
k) F.W. and nozzle cooling spaces to be chemically cleaned (Chemical - yard supply) and pressure tested and defects to be attended.	2	Engine		
l) Exhaust gas pipe flange connections and compensators to check for leaks and defects to rectify. Rate should be inclusive of copper packings, bolts & nuts and other consumables.	2	Engine		
m) To overhaul all Fuel injection pumps and Injectors (6 Nos each engine), Fuel linkage bearings, Rocker arm bushes, Fuel valves, Air starting valves, and Indicator cocks.	2	Engine		
n) Main starting air v/v's , startng air valves and air distributors to complete overhaul. Dismantle and complete overhaul control air valves of 10 & 30 bar system, replace wear parts.	2	Engine		
o) After assembly bumping clearances of all the units, Fuel delivery timings to be checked and adjusted.	2	Engine		
p) Main engine & ECR alarm panel and connected machinery sensors, transmitters, panel meters for monitoring of engine parameters to be calibrated and calibration certificate to be issued. All safety cut outs to be checked and satisfactory functional operation to be shown to Shipstaff/IRS.	2	Engine		
q) After overhauling all items are to be boxed back. During the trials: Checking of all alarms and shut down instruments for proper functioning by testing and rectification of defects, if any after calibration. To record compression & peak pressures and all the parameters to be compared with Sea trial data and necessary corrections to make for running the engine to optimum condition.Satisfactory sea trials to be shown to ship staff.	2	Engine		
r) Main engine turbo chargers to be dismantled, cleaned, inspected and completely overhauled including nozzle rings. Turbo charger rotor to be ash blasted. Turbo charger Dynamic balancing to be done. All seals, bearings to be renewed. During overhauling any defect observed, same to be rectified / repaired / renewed. Turbo charger - Primary & secondary filters to be throughly cleaned with chemical and fitte back.Turbo charger LO gravity tank to be cleaned. After completion of all repairs, satisfactory trails to be shown to shipstaff.	2	NOS		
<p><b>Note:</b></p> <p>1) If required Yard has to arrange OEM Service Engineer. Charges will be paid to yard at Actuals with a mark-up of 10%. Yard has to submitt proof of payment along with Service report and Invoice of OEM.</p> <p>2) Quoted cost must be inclusive of Valve seat, exhaust valve cage &amp; Valve seat landing area Etc (as required) Grinding / Lapping &amp; Machining by Competent Person.</p> <p>3) Proportionate rate shall be applicable for the partial/ Part work completion.</p> <p>4) During overhauling, if found any parts renewal,same are to be renewed (Spares ship supply).</p>				



2	<b>Aux. Engine : MAN truck &amp; bus AG, Germany Type:D2840LE, 10V TYPE ENGINE,440BHP Fuel Pump Type: BOSCH- 0872100007 0/0 401849748 PF 10P120A520/4LS3849, MAN PART NO:51.11102-7975</b>				
	Fuel Injection pumps of Aux. Engine to be disconnected from the units, to be cleaned and completely overhauled through authorised service engineer / firm. After complete repairs and tuning, pumps to be fitted back in position and Aux. Engine to be tried out and any defects observed to be rectified and fine tuning with engine to be carried out for smooth operation of engine.. Satisfactory load trials to be given to ship staff. Spares for overhauling of pumps to be supplied by Yard. Quote should be inclusive of all.	4	Nos.		
3	<b>COOLERS OVERHAULING:</b>				
	The following Plate / shell & tube type Coolers are to be dismantled from position by removing all connections and transported to Workshop. After chemical cleaning / overhauling, pressure testing to be carried out and body & side plates / end covers to be painted, Inspect for any damages to tubes/plates and renew defective ones and renew the gaskets as required. coolers are to be fitted back with all connections and satisfactory trials to be shown to ship staff.(quote should be inclusive of chemical cost).				
	a) H.T. Coolers: Make-AMW, Type K MG-10/2, Capacity-2020 KW, Mass-510 KG. Size: 1200 mm. X 600 mm	2	No.		
	No. of Plates: 33 each				
	b) L.T. Coolers (E/R) : Make-AMW, Type-R55 MSG-10/3, Cap-1820 KW, Mass-860 Kg. Size: 1800 mm X 720 mm	2	No.		
	No. of Plates: 107 each				
	c) L.T. Coolers (Ford m/cnry)-2 nos & Harbour Cooler-1 no. : Make-AMW, Size: 1525 mm X 450 mm X 31 plates	3	No.		
	d) Hyd Oil Coolers 1 no. : Make-AMW, Size: 1525 mm X 450 mm X 31 plates	1	No		
	e) Coolers to over haul Size- Dia 200 x 500 -1 no.	1	No.		
4	<b>MAIN ENGINE CHARGE AIR COOLERS OVERHAUL:</b>				
	Cooler Size-700 mmx810 mmx 1410 mm				

	(i) Open the Port & Stbd. Main Engine Scavenge Air Coolers to <del>remove</del> take out from position after removing of all pipe connections, transport to workshop and clean the air coolers in a tank with ACC-9 chemical (Ship Supply Yard supply) or equivalent in the ratio of 1:2. Agitate the chemical & water mixture with L.P. air. Pressure test Coolers to 3 Kg/Sq.Cm. Defective tubes to plug if required (Plugs ship supply). After completion of cleaning, the cooler end cover to be cleaned of oil & dust stains & painted, transport back to ship fitted with new HT bolts with washers (yard supply) and gaskets/ joints. Any broken bolts to be extracted and threads re-tapping. Unit to put back and satisfactory operation to be shown.	2	No.		
	(ii) Mechanically clean air cooler housings including oil stains removal, and paint the surface. Approx. Size: 1420 mm x 1900 mm x 1000 mm.	2	No.		
5	<b>MAIN ENGINE LUBE OIL COOLERS OVERHAUL</b>				
	Make: AMW, output-650 kW, Mass-1670 kg. Type-A-085 MGS-10/3 Size : 2139 X 720 X 131 plates				
	i) ME L.O. Cooler to be removed from position disconnection all lines, cleaned and overhauled, damaged gaskets to be renewed with ship's spare. Unit to pressure test and fitted back in position. cooler end plates to be cleaned and painted. Work to be completed to the satisfaction of Ship staff.	2	No.		
	ii) Coolers back flushing system to be cleaned & fitted Back.	2	No.		
6	<b>OVERHAUL OF PUMPS</b>				
	The following pumps to be disconnected and removed from position, completely dismantled, cleaned and overhauled, casing surface to be painted, bearings, wear rings, shaft sleeve, gland bush and packings to renew as required. Shaft trueness to be checked.Pump to be assembled and fitted in position and satisfactory operation to be shown. (Spares yard supply)				
	a) Flushing Pumps (Cap. 128 Cum./ hour, 3 Bar)	1	No.		
	b) L.P. Gland Pumps and H.P. (Cap-60 Cum/Hr, 8.5 Bar).	5	No.		
	c) AC S.W. Pump (cap.50m3/hr, 2 Bar).	1	No.		
	d) LT Fresh Cooling Water Pumps (cap.135 m3/hr, 3.5 Bar).	3	No.		
	e) M/E HT Cooling Water Pumps (cap.61m3/hr, 3.5 Bar).	2	No.		
	f) Raw Cooling Water Pumps (cap.50m3/hr, 2 Bar).	6	No.		
	g) Emergency Bilge and Fire Pumps (cap.48 m3/hr, 4.5 Bar)	2	No.		
	h) D/P Gland Pumps (Cap 60m3/hr, 7.5 Bar-)	2	No.		
	i) Fire fight/Gen Serv pump (cap.100/67m3/hr)	2	No.		

7	<b>PROPULSION GEAR BOXES:</b> Both gear box to be opened, cleaned, inspected and completely overhauled. Gears and bearings to be checked, inspected and DP/MPI test to be done. Bearings to be renewed. All seals to be renewed. During overhauling, any defects observed, same to be rectified/repared/renewed. After completion of all repairs, satisfactory trials to be shown to shipstaff. spares ship supply	2	NO		
8	<b>DREDGE PMP GEAR BOXES:</b> Both gear boxes to be opened, cleaned, inspected and completely overhauled. Gears and bearings to be checked, inspected and DP/MPI test to be done. Bearings to be renewed. All seals to be renewed. During overhauling, any defects observed, same to be rectified/repared/renewed. After completion of all repairs, satisfactory trials to be shown to shipstaff. spares ship supply	2	NO		
<p><b>Note:</b> If required Yard has to arrange OEM Service Engineer for above. Charges will be paid to yard at Actuals with a mark-up of 10%. Yard has to submit proof of payment along with Service report and Invoice of OEM.</p>					
9	<b>ECR A/C System (Port) Make : Sabroe,</b> ECR A/c Unit non-operational. Unit to be checked, compressor to be replaced with equivalent, complete system to be repaired / modified as required, Complete system to be, vacuummised, leak tested, gas charged, all safety cutouts & alarms to be checked and adjusted and satisfactory trials to be shown to ship staff. (All spares and Gas Yard supply) Compressor <b>Make:</b> BITZER,	1	Unit		
10	<b>REFRIGIRATION SYSTEM</b> Refrigeration plant (Fwd) compressor to be overhauled, condensor to be overhauled, chemical cleaned and pressure tested. System to be cleaned, flushed with nitrogen and vacuummized. All pipes to be checked for any leaks and leaking pipes to be repaired / renewed. All safety cutouts & alarms to be checked and adjusted. During overhauling of system, any defects observed, sme to be repaired / renewed / rectified. System to be gas charged (Gas-Yard supply). Complete system to be made operational and satisfactory trials to be shown to ship staff.	1	Unit		
11	<b>VENTILATION SYSTEM</b> Engine Room and pump room, FWD machinery space & Bow thruster room ventilation system & gratings to be removed, trunking to be cleaned wasted gratings to be renewed. Trunking size- Approx. 400 mm x 300 mm x 30 Meters	30	Mtr		
12	<b>FIXED CO2 FIRE EXTINGUISHING SYSTEM - 2-YEARLY MAINTENANCE ROUTINES TO BE CARRIED OUT AS PER DGS GUIDELINES 06 OF 2013 DTD 19/08/2013. (45 Kg Cap. - 51 Nos, 9 Kg Cap. - 2 Nos)</b>	1	LS		

13	<p><b>Main Air compressor - 1 &amp; 2</b> : Existing main compressor 1 &amp; 2, Make : Atlas Copico , Type: LT 75-30 KE, to be renewed with Ship supplied New Air compressors along with motor Make : Hatalpa, Type: L35. The above new compressors to be renewed, foundation to be made as per the new compressors, all connections to be provided. Necessary cabling and cable trays to be provided. New Low Lube oil alarm &amp; trip to be provided in Main air compressor panel in ECR. The complete installation and commissioning of the Main air compressor to be carried out as required. After completion of repairs / installation, satisfactory trials to be shown / given to Shipstaff / CLASS surveyor.</p>	2	LS		
	<b>TOTAL FOR GROUP-F</b>				

**GROUP-G****DECK MACHINERY, HYDRAULIC/ OBD VALVES AND PIPELINES**

SI. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
					Rs.
1	<b>ANCHOR WINDLASS:(Fard &amp; Aft)</b>				
	(Make-KRAAJEVELD, Mass-42000 KG)				
	Following repairs to be carried out:				
	a) Both windlasses to be opened, cleaned, inspected and complete windlass to be overhauled including hydraulic unit. All bearings, seals and brake bands to be renewed. During overhaul any defect observed, same to be rectified/repaired/renewed. After completion of repairs, chipping and painting to be done and satisfactory load trials to be shown to shipstaff.	3	No.		
	b) Renewal of brake liners including brake lining,brass screws & nuts etc.,	3	NOS		
	c) Gypsy and guide roller to be buildup & ground to original thickness and proper shapre.	150	KGS		
	d) Worn out portion of Dog clutch to be build up and machining	25	KGS		
	e) Reconditioning of gypsy	1	No.		
2	<b>OVERHAUL OF HYDRAULIC OPERATED VALVES</b>				
	a) Valve to be removed from place and taken to workshop after removing all necessary pipelines including dredge pipes. Valve to be dismantled and nose and buffer rings removed. Nose & buffer rings(ship supply) to be renewed. Valve body in a way of nose and buffer rings to be calibrated and report submitted.Valve slide to inspect and dress as required. Valve slide guides to insect, measure the gap, renew the guide bars in order to adjust the clearance as required.Water boxes to be pressure tested to 5.0 bar. Water box to be scraped and cleaned and painted with Apexior paint. Valve slide and spindle to be dismantled. Indicator spindle to be checked for trueness and mechanism to be overhauled. Damaged valve slides to be renewed with ship supplied slides. Water gland seal for valve spindle to be repaired or renewed. Flushing water space to be cleaned and painted with Apexior. sensors for Open - close indication to be removed carefully and refitted after completetion of repairs. All cables to be secured properly on new flat bars & conduit pipes and connected back.				

	b) Removing hydraulic cylinder from valve, renewal of piston seals & gland seals and fitting back cylinder on the valve and valve assembled back with yard supply packings. Valve to be pressure tested and tried out hydraulically by hand pump to the satisfaction of ship staff. Valve body to be chipped and painted with one coat each of epoxy primer and enamel green. Valve to be taken on board and refitted in place with new yard supply joints. Valve to be shown in working condition. All pipelines to be assembled back and any leakages from pipelines to be rectified. Valve to be shown in working condition.				
	i) 600 mm	4	Nos.		
	ii) 700 mm	2	Nos.		
	iii) 800 mm	12	Nos		
	c) Worn out portion in way of seat/nose and buffer rings to be built up by low hydrogen electrodes to required diameter and machined to original dimensions. Rate should be inclusive of cost of electrodes & machining.	500	KG		
	d) Worn out/thinned down portions of water box valve body to be cropped and renewed.	50	KG		
	e) Renewing the indicator unit (MS)	8	NO		
	f) Fabricating, fitting by welding the MS guide plates – approx. size 230x80x20 – 4 Nos. to guide the valve slide to each valve.	68	NO		
	g) Breather valves on deck to be removed from place, opened, cleaned, MS cage to be renewed, overhauled and fitted back with new gaskets, bolts & nuts. Balls to be renewed (Ship supply)	6	NO		
3	<b>OVERHAULING OF SEA SUCTION &amp; OVERBOARD VALVES</b>				
	a) The following valves to be removed from position, transport to workshop, opened, cleaned, examined, valve flap, valve bonet, valve lid and valve seat to be skimmed /lapped, spindle trueness to be checked, overhauled (including operating mechanism) and repaired as required and pressure tested. Rubber lining to be repaired. Gland packing to be renewed. Internal coatings to be restored. During overhauling, any defect observed, same to be repaired/ rectified/ renewed. Any build up of valve seat to be carried out and ground to smooth by machining. After completion of all repairs, the valve to be fitted back in position with new gaskets, bolts & nuts.				
	(i) Sea Suction/Delivery Valves in Pump room				
	700 NB Butterfly Valves	4	NO		
	600 NB Butterfly Valves	2	NO		

	500 NB Butterfly Valves	2	NO		
	400 NB Butterfly Valves	2	NO		
	(ii) Butterfly Valves in Engine Room & Pump Room				
	300 NB	3	NO		
	200 NB	2	NO		
	150 NB	1	NO		
	125 NB	7	NO		
	100 NB	5	NO		
	75 NB	5	NO		
	65 NB	10	NO		
	(iii) Globe Valves in Engine Room				
	<u>&amp; Pump Room:</u>				
	300 NB	1	NO		
	200 NB	2	NO		
	150 NB	2	NO		
	100 NB	7	NO		
	65 NB	1	NO		
	50NB	3	NO		
	20 NB	4	NO		
	(iv) Draft Load Monitor (DLM) Transducer connection shut off valves,both Fwd. & Aft.to be removed from place, overhauled, pressure tested and fitted back.	2	NO		
	(v) Engine Room overboard discharge Globe Valves:				
	125 NB	2	NO		
	80 NB	4	NO		
	65 NB	4	NO		
	32 NB	1	NO		
	20 NB	1	NO		
	(vi) Pump Room overboard Globe Valves:				
	100 NB	4	NO		
	80 NB	1	NO		

(vii) Valves in Pump Room:				
80 NB Screw down nonreturn Valve	8	NO		
50 NB Screw down nonreturn Valve	4	NO		
32 NB Screw down non return Valve	1	NO		
20 NB Screw down non return Valve	8	NO		
125 NB Angle Valve	1	NO		
(viii) Rubber line coating for butterfly valves and proving water tightness for below valves				
700 NB Butterfly Valves	2	NO		
600 NB Butterfly Valves	1	NO		
500 NB Butterfly Valves	1	NO		
400 NB Butterfly Valves	1	NO		
b) INTERMEDIATE VALVES TO BE OVERHAULED:				
Following Valves in Engine Room and Pump Room need to be overhauled / renewed:				
i) Butterfly Valves in Bow Thruster, Port & Stbd.Dredge Pump Engine Cooling Water Pump, Gland Flushing Pump Suction, Port, Stbd. & Centre, Main & D/P Engine Air Cooler, Seawater Inlet/Outlet, Main Engine Seawater Discharge:				
125 NB	3	NO		
100 NB	2	NO		
65 NB	4	NO		
80 NB	4	NO		
ii) Straight Screw Down Valves in Engine Room:				
32 NB	6	NO		
20 NB	20	NO		
50 NB	1	NO		
iii) Angle Screw Down Valves in Engine Room:				
40 NB	9	NO		
32 NB	1	NO		
20 NB	3	NO		
iv) Screw Down Non return Valves in Pump Room:				
80 NB	2	NO		



	50 NB	1	NO		
	50 NB	8	NO		
	v) Straight Screw Down Valves in Pump Room:				
	50 NB	1	NO		
	32 NB	4	NO		
	20 NB	5	NO		
	vi) Angle Screw Down Nonreturn Valve in Pump Room:				
	125 NB	1	NO		
4	<b>STORM VALVE;</b>				
	a) Storm valves are to be removed from the place. Valves are to be dismantled, overhauled, and cleaned and to be put up for IRS Surveyor's inspection. (Repairs Extra). Valve to be pressure tested. After Completion of Surveyor's final inspection, Valves are to be boxed back and fitted in place with new joint nut and bolts as required. (100 NB-2Nos, 150NB-1No).	3	NO		
	b) The Storm Valves are to be repaired as recommended by Surveyor, such as –				
	(i) The Valve Seat to be skimmed	3	NO		
	(ii) The Valve flap to be rubber lined	3	NO		
	(iii) The Valve Spindle is to be manufactured and replace the old spindle (MS)	3	NO		
	c) Stub piece to be chipped, cleaned and painted	3	NO		
5	<b><u>HYDRAULIC PIPELINES:</u></b>				
	The following hydraulic pipes dismantled from ship, transported to workshop, fabricated new, fitted in place, pressure tested and shown to ship staff (all hyd. Pipes, Allen bolts, rubber rings and fittings – Yard's supply)				
	a) ss pipe - 40mm. O.D.	10	MTR		
	b) ss pipe – 30mm. O.D.	20	MTR		
	c) ss pipe - 25mm. O.D.	40	MTR		
	d) SS pipe - 16mm. O.D.	10	MTR		
6	<b>RENEWAL OF F/W ,S/W PIPELINE, LO/FO PIPELINES, SCUPPER / SANITARY LINES AND ALL SYSTEM LINES:</b>				
	At various places with seamless steel Sch.80 MS pipe to be renewed re-using old flanges (Rate shall include hot bends, clamps, packings, bolts & nuts)				
	a) Nominal dia.(in mm)				

	i) Upto 15	20	MTR		
	ii) 16 to 25	30	MTR		
	iii) 26 to 50	50	MTR		
	iv) 51 to 80	50	MTR		
	v) 81 to 100	100	MTR		
	vi) 101 to 150	50	MTR		
	vii) 151 to 200	30	MTR		
	viii) 201 to 250	20	MTR		
	b) GI Pipes Heavy Duty				
	i) up to dia 25 mm	50	MTR		
	ii) dia 26 to dia 50 mm	50	MTR		
	iii) dia 51 to dia 75 mm	100	MTR		
	iv) dia 76 to dia 100 mm	50	MTR		
	v) dia 101 to dia 125 mm	50	MTR		
	vi) dia 126 to dia 150 mm	30	MTR		
	c) MS Flange renewal				
	i) 150mm	20	Nos		
	ii) 100mm	20	Nos		
	iii) 80mm	20	Nos		
	iv) 65mm	20	Nos		
	v) 50mm	20	Nos		
	vi) 25mm	20	Nos		
	d) GI Flange renewal				
	i) 150mm	20	Nos		
	ii) 100mm	20	Nos		
	iii) 80mm	20	Nos		
	iv) 65mm	20	Nos		
	v) 50mm	20	Nos		
	vi) 25mm	20	Nos		
	e) Renewal of Sockets / bends (Sch.80)				

	i) upto 25mm	20	Nos		
	ii) 26 - 50mm	20	Nos		
	iii) 51 - 80mm	20	Nos		
	iv) 81 - 100mm	20	Nos		
	v) 101 - 150mm	20	Nos		
	vi) 151 - 200mm	20	Nos		
	vii) 201 - 250mm	20	Nos		
	viii) 251 - 300mm	20	Nos		
	f) Renewal of Sockets / bends (GI)				
	i) upto 25mm	20	Nos		
	ii) 26 - 50mm	20	Nos		
	iii) 51 - 80mm	20	Nos		
	iv) 81 - 100mm	20	Nos		
	v) 101 - 150mm	20	Nos		
	vi) 151 - 200mm	20	Nos		
	vii) 201 - 250mm	20	Nos		
	viii) 251 - 300mm	20	Nos		
	g) Removal, choke clearing and fitting back pipes at various places				
	i) up to dia 50 mm	30	MTR		
	ii) dia 51 mm to dia 100 mm	20	MTR		
	iii) dia 101 mm to dia 125 mm	20	MTR		
	iv) dia 126 mm to dia 150 mm	20	MTR		
	v) dia 151 mm to dia 200 mm	20	MTR		
	vi) dia 201 mm to dia 250 mm	20	MTR		
	h) In-situ pressure testing and choke clearing of pipes				
	i) up to dia 50 mm	20	Mtr		
	ii) dia 51 mm to dia 100 mm	10	Mtr		
	iii) dia 101 mm to dia 125 mm	10	Mtr		
	iv) dia 126 mm to dia 150 mm	10	Mtr		
	v) dia 151 mm to dia 200 mm	20	MTR		

	i) Jet pipes inside Hopper to be cut opened suction wise, choke cleared, welded back after choke clearing. Size: apprx. Dia 250mm & Dia 350mm. Thinned down pipes to be cropped & renewed as per pipe rates.	100	Mtr		
	j) Fire line at different deck levels to be cropped and renewed.				
	i) 4 1/4"	17	Mtr		
	ii) 3 1/4"	3	Mtr		
	iii) 3 "	15	Mtr		
	iv) 2 1/4"	4	Mtr		
7	Renewal of various Copper pipe lines along with end fittings for all ship machinery as necessary. (Rate includes end fittings, unions, clamps, , bolts & nuts)				
	(i) Dia 8 to 12 mm	25	Mtr		
	(ii) Dia 16mm to 20mm	10	Mtr		
8	Jet Nozzles in hopper area to renewed with ship supplied Spares	50	Nos		
9	Renewal of hyd operated butterfly valve (350nm) inside centre keelson. Removal from place after disconnecting all mechanical, hydraulic & electrical/sensors connections, etc. Valve to be fitted in place with new gaskets, nuts & bolts (all materials - yard supply) satisfactory trials to be given to shipstaff after job completion. All access works to be considered for this job inside centre keelson space	2	NOS.		
10	<b>TRAVELLING DECK CRANE</b>				
	a) Deck guide rollers found worn out and jammed in position. rollers to be dismantled from position and fitted back after reconditioning.	4	Nos.		
	b) Guide rollers to be built-up and machied to the required clearances.	40	Kg		
	c) Crane operator's cabin steel plating on observer side to renew completely. (Job shall include removal and refitment of wind shield, wiper system, panelling, cables etc..)	1	LS		
	<b>TOTAL FOR GROUP-G:</b>				

**GROUP-H****PUMP ROOM MACHINERY AND DREDGING EQUIPMENT**

Sl. NO	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs.
1	<b>OVERHAUL OF DREDGE PUMPS (PORT &amp; STBD):</b>				
	Following job to be done on both Dredge Pump.				
	a) Removing distance piece & all other connection as required, tripartite rings, dismantle pump impeller, end covers including suction cover lip seals, wear plates, filler plates, Liquidyne seals, flushing chamber and seal unit / pot etc, thorough cleaing, chipping (wherever required), shaft threads to be DP tested for any cracks and complete overhauling, taking initial and final clearances and boxing back with new seals & "O" rings / cord as required and filler & wear plates including fitment of dowty lugs, dowty bolts, washers and dowty seals etc. Pump clearances are to be maintained / adjusted to working limits as per ship staff instructions. (All spares -ship supply).	2	NO		
	b) Casing, Impeller and end cover to be build up as found necessary				
	i) Buffer Layer (7018)	150	KG		
	ii) Hard facing	50	KG		
	c) Manufacture & supply new Wear & filler Plate for Renewal as per required for clearances adjustment ( Inssitu measurement to be taken acordingly. Sizes :Approx. Suction side OD- 1920mm, ID- 930mm. Shaft side OD-1920mm, ID- 780mm thickness as required. The cost should be inclusive of machining, drilling & other prcision jobs including dowty lugs holes)	500	KG		
	f) To renew Stbd Dredge pump casing, including R/R of discharge pipes, thrust block, alignment of shafting with casing & thrust block. Fit bolts fitment & reaming as required. Renewal of Metal chockes and foundation repairs as necessary / required including blue maching.	1	NO		
	g) <b>Thrust block:</b> Disconnect and Transport impeller shaft and bearing assembly to shop, dismantle, overhaul, renew owner supplied bearings, seals, etc., box back, re-aligned in place with pump shaft and coupled to the drive shaft (toothed coupling). Toothed coupling to be inspected, cleaned, greased and boxed-back. satisfactory trials to be shown to ship staff.	2	NO		
2	<b>Pneumoflex Coupling - Dredge Pumps -</b>	2	Nos.		

	i) Coupling to be removed from place after disconnecting all connections & fittings, transported to workshop, dismantled completely, all parts to be cleaned, inspected and complete overhauling to be done. All defective parts, seals, friction pads etc., to be renewed with yard-supplied glue/adhesive for seals & friction pads, etc. After completion of all repairs & boxing back at workshop, coupling to be aligned, clearances to be measured, any deviations to be adjusted/corrected. Satisfactory trials to be shown to shipstaff. Note: Utmost care to be taken for ME crankshaft axial shift, while attending the above work.				
	ii) Leakage of air if any from clutch control box to be identified and arrested.				
	iii) Spiro flex Coupling to be renewed with ship spares.				
3	<b>PORT &amp; STBD JET PUMP:</b> Both Jet pumps alignment to be checked before dismantling for reference. Couplings to be disconnected, Pumps to be removed from position after removing all necessary connections, transport to workshop, to be dismantled completely and overhauled. Shaft trueness to be checked and threads to be dressed up. Wear rings's, shaft, shaft sleeves and Impeller to be renewed. Both end bearings to be renewed. Pump casing joints to be renewed ( Yard supply). Gland packings ( Yard supply-Graphite based) to be renewed. gland cooling lines to be checked for clear passage and renewed, if required. During overhauling any defect observed, same to be rectified/repared/renewed. Greasing passages and nipples to be checked, cleared and renewed, if required, to maintain smooth grease flow to all required areas. After completion of repairs, pumps to be pressure tested for 15 bar for no leak and fitted in place and alignment to be done and satisfactory trials to be shown to SS and tried out. spares ship supply	2	NO		
	i) Build-up & grinding of casing including, wear ring landing area, shaft sleeve landing area..	25	kgs		
	ii) Line boring , if required	1	pump		
4	<b>RENEWAL OF DREDGE PIPES</b>				
	a) Thickness gauging of dredge pipes and jet lines in pump room, deck, centre keelson and hopper carried as per Gr- C, SI No: 11, Fabrication (as per drawing) and renewal of Dredge pipes with Grade-A Steel, and fit in place with new packing and bolts & nuts (yard supply). Sizes and length of the pipes to be mentioned clearly in work done certificate along with location.				
	i) Straight Pipe 800mm I.D, 16 mm thick	15	tons		
	ii) Straight Pipe 800mm I.D, 25 mm thick	5	tons		

	iii) Y- pipes - 800 dia, 16 mm thick	2	tons		
	iv) T-Pipe - 800 dia, 16 mm thick	2	tons		
	v) Bend pipes -800 dia, 25 mm thick	2	tons		
	b) Both P & S suction tube pipes (lower and upper pipes) to be renewed O.D.832/800 I.D as per drawings, and fitted in place with existing flanges. All the mountings and fixtures on old pipe to be removed and welded to new pipes with proper alignment.	15	tons		
	c) Renewal of suction and discharge pipes and sections supplied by DCI (Packings, O-rings, Nut & bolts Yard supply)				
	i) 800 ID Straight pipes	15	Ton		
	ii) T / Y sections	5	Ton		
	iii) Bends 90°/30°	5	Ton		
	iv) Fabrication of flanges, if required ID/OD-800/1200, 20mm to 45 mm Thk (including machining and drilling holes) or as per required sizes of dredge pipes, overflow duct & dredge valves etc.	1	ton		
	v) Welding of flanges (Yard / DC I Supply) as per alignment of dredge pipes in the assembly	600	Kg		
c	After all renewals dredge pump suction and discharge pipes, jet pipes on deck and hopper to be sand blasted(SA-1) one coat of primer and bituminous paint to be applied	450	Sq.M		
5	<b>SUCTION SLEEVES</b>				
	i) Both Port and Starboard suction sleeve to be renewed if found worn out. (800mm ID x 1700mm long x 16 mm thick) - pipe yard supply	2	TON		
	ii) Both port and starboard suction mouth flat ring to be renewed if found worn out. APPROX. Size : 810 ID x 1200 OD x 25 mm thick	200	Kg		
	iii) Jet discharge mouth to be built up & grinding as required.	10	Kg		
	iv)Both suction mouth flat ring to be built up on worn out areas	25	KG		
	v) P & S hopper suction mouth flat rings of approx. size:720x600x16mm -2nos(P&S) to be made and renewed along with yard supplied SS studs of approx. size M16x50- 16 nos for each.	2	Nos		
6	<b>JET PIPES:</b>				
	Thinned down jet pipes in pump room, inside central keelson and hopper are to be renewed with SCH -80 pipe with existing old falanges (inclusive of gaskets,new bolts & nuts-yard supply) as per UTG & SS instructions, Sch 80 - Pipe.				
	a) Dia 200 to 250 MM	30	MTR		
	b) Dia 300 MM	50	MTR		
	c) Dia 350 MM	20	MTR		

	d) Sleeve renewal for above pipes in hopper as required	10	No.		
	e) Renewal of Jet Flanges	20	No.		
7	<b>DRAGHEAD AND INTERMEDIATE GANTRY: (PORT &amp; STBD)</b>				
	a) All four draghead and intermediate gantries to be dismantled and kept ashore for inspection. To be fitted back after repairs	4	NO		
	b) Gantry heel pins to be built-up and machined to required dimensions	120	Kg		
	c) (i) Gantry heel bushes to be renewed and clearances to be recorded	8	Nos		
	(ii) Make & supply of New Gun metal Bushes as per insitu measurements, including drilling, machining and other precision jobs as necessary. Finished product weight will be considered.	60	kgs		
	d) Gantry bush housing and covers to be built up and machined (Line boring) to original size, if required.				
	i) Build up	200	KG		
	ii) Line boring	4	Gantry		
	e) Greasing line to be freed, renewed wherever required, nipples to be fixed wherever required and satisfactory operation shown.	4	Gantry		
	f) Gantry head tumbler blocks to be opened up and overhauled. Pins and bushes to be renewed and fitted back.	4	Gantry		
	g) Wooden fender brackets to be renewed	500	KG		
	h) Wooden fenders to be renewed	2	NOS		
	i) Gantries to be UT gauged	100	POINTS		
	j) If found below permissible limits to be cropped and renewed.	1	TON		
8	<b>SUCTION BEND GANTRY (PORT AND STBD):</b>				
	a) Both P & S gantries along with service frame to be dismantled and kept ashore for inspection. To be fitted back after repairs	2	Gantry		
	b) Gantry heel pins and top pins are to be checked for wear and tear. Worn out pin /shaft to be renewed / reconditioned to original size. Bush housing and cover to be built up and ground to original size. Lower-half Bush housing to be renewed, as required as per shipstaff instructions.	2	Gantry		
	c) Greasing arrangements for heel bushes to be cleaned and made good including renewal & proper securing/clamps arrangements	2	Gantry		
	d) Suction bend gantry all bushes to be renewed as per instructions .(Pins & bushes Ship supply)	6	NO.S		
	f) After renewal of bushes, suction bend gantry to be tried out for proper alignment.	2	NO.S		
	g) Service frame pin and bush to be renewed and after renewal to be tried for alignment.(Pins & bushes Ship supply). New lock-plates to be made & fitted	16	NO.S		



	h) Service frame and gantry to be UT gauged and wasted areas to be renewed	250	kg		
9	<b>SUCTION TUBE, SLIDE AND SUCTION BEND (PORT &amp; STBD):</b>				
	a) Dismantling and removing Suction tubes (800 NB pipes x 16000mm long (apx)), gimble ring (2500x2500), fork arms, turning gland, dragheads and all jet lines, bellows and hoses from position including STPI sytem etc, transported to workshop. After completion of repairs (to various items) all parts (OLD / NEW) to be fitted to back in position.	2	SET		
	b) Both port & stbd suction slides and suction bends to be taken-out from position and completely dismantled & boxed-back with new / reconditioned internal parts, studs & nuts (ship-supply).	2	SET		
	c) Renewal of the damaged or worn out L-ring of the suction slide (L-ring ship supply)	2	Nos		
	d) Wedge pieces (ship supply) to be renewed along with the rod and adjusting position of slide with suction mouth.	2	Nos.		
	e) wearing rings to be renewed on slides as per instructions.	2	Sets		
	f) Worn out areas of slides to be built up including studs area, as per instructions and wearing plates to be renewed as per instructions.	100	KG		
	g) Suction Bend arm piece bush and pin to be renewed with new locking-plates	4	NO		
	h) Both port and starboard suction bends pipes to be coated with a layer of plastic carbide for protection as advized by Superintendent /SS, if required	100	KG		
	k) Suction bend pipe rotating gland collar/flange to be built up with suitable electrodes and ground/machined to required size to maintain minimum working clearances as per shipstaff instructions	100	KG		
	l) Suction bend pipe rotating gland collar retaining half ring washer to be renewed if found worn out or broken.	2	NOS		
	m) Jet Manchet & Spacer ring to be renewed	2	NOS		
	o) bush housings of gimble ring and fork arms to be built up and machined, if enlarged.	40	KG		
	p) pins & bushes of Gimble ring & fork arms assembly to be renewed alongwith yard-supplied new locking plates				
	i) Pins	8	NO		
	ii) Bushes	24	NO		
	q) Bush housings of Suction bend with fork arm (P & S) to be built up and machined, if enlarged.	50	KG		
	r) Pins & Bushes to be renewed, assemble back with yard-supplied new locking plates				
	i) Pins	4	NO		

	ii) Bushes	12	NO		
	s) Thinned down, wasted and corroded portion of the fork arms to be cropped and renewed as per drawing. Proper alignment of arm's bush-housing to be checked & corrected, if required.	500	KG		
	t) U-Channel for suction tube depth indicator air pipe of approx. size 100 x 50 mm is to be cropped and renewed including fabrication of channel.	300	KG		
	u) Jet pipe MS box & supports to be renewed if required.	200	KG		
10	<b>SHEAVES INCLUDING IN THE SWELL COMPENSATOR</b>				
	All Port and starboard side sheaves and pins to be dismantled. Complete pulleys are to be thoroughly, inspected, cleaned and overhauled. Pins and bushes are to be removed. After inspection and overhauling, the pin & bush, pulleys are to be fitted back with new /reconditioned pin and bushes. new Locking plate to be welded. Greasing lines/passages to be cleaned and made good.	18	NOS		
11	<b>HYDRAULIC CYLINDERS;</b>				
	Hyd. Cylinder to be disconnected from place by removing all connections and shift to workshop. Hyd cylinder to be dismantled, clean, inspect and completely overhauled. Piston seals, bucket & gland seals to be renewed from ship stock. Hyd cylinder to be gauged & report to be submitted. Hyd rams to inspect & gauge, chrome plate to do as required. Hyd. Cylinder end swivel bearings to renew with ship supply spares. Cylinder exterior to be chipped, cleaned thoroughly and apply two coats of paint. Cylinder to be fitted back after renewal of all seals. Hyd cylinder to be pressure tested & satisfactory trials shown to ship staff.				
	a) Port & Stbd. draghead gantry	2	NO		
	b) Port & Stbd. Intermediate gantry	2	NO		
	c) Port & Stbd. Suction Bend gantry	2	NO		
	d) Bottom door Hydraulic cylinders	6	NO		
	e) Upper door Hydraulic cylinders	22	NO		
	f) Port & Stbd wire tensioner swell compensators	4	NO		
	g) Over flow duct Hyd. Cyl.	1	NO		

12	<b>WINCHES:</b> Following winches including rope drum, hydraulic brakes and hydraulic motors are to be dismantled, inspected, completely overhauled, and assembled back with new seals, bearings, brakes etc. (ship supply) with painting.. Complete gear boxes to be thoroughly overhauled and DP / MPI tested. Renew all bolts and nuts including foundation bolts. All hyd. lines to be connected with new washers, 'O' rings and secure with new brackets. All Hyd. unions, relief v/v, shuttle v/v, hyd. line cocks and valves are to be covered with DENSO tape for protection.After assembling satisfactory trial to be shown.				
	a) Draghead winch (P&S)	2	No.		
	b) Intermediate winch (P&S)	2	No.		
	c) Trunion winch (P&S)	2	No.		
	d) Bow Coupling winch	1	No.		
	e) Accommodation ladder winch (Electric Driven)	2	No		
	f) Winch foundation thinned/wastred plates to be renewed, as required	1	Ton		
13	<b>a) Bow Coupling:</b> bow coupling to be removed from place after disconnecting / removing all necessary connections, transport to workshop, dismantle, chipping, cleaning, inspect, complete overhauling of bow coupling including hydraulic cylinders (2 nos) to be carried out. Hydraulic cylinders to be opened up, completely overhauled with new seals and pressure tested. All seals for bow coupling to be renewed with Ship supplied spares. Greasing passages and nipples to be checked, cleared and renewed, if required, to maintain smooth grease flow to all required areas. After completion of all repairs, the bow coupling to be painted and fitted back in place along with Hydraulic cylinders. Satisfactory trials to be shown to ship staff.	1	LS		
	b) female part of the coupling to be chalk tested / impression checked with the male counter part to assess the contact, female part to be reconditioned to required clearances for making the system leak proof.	1	LS		
	<b>TOTAL FOR GROUP-H:</b>				

<b>GROUP-I</b>					
<b>ELECTRICAL EQUIPMENT</b>					
SI	Description	QTY.	UNIT	RATE	AMOUNT
No					Rs. Ps.
1	410 KVA (330KW) Auxiliary Generators: Disconnect, decouple, clean , varnish and baked. Slip rings to clean, brush holders to remove and clean. Insulation to improve. Respective exciter units also to be cleaned varnished and baked. Inspection window cover to renew. Bearings (Ship supply) to be renewed. Air gap to be checked and maintained. Complete generator to be overhauled. Winding temperature sensors to be checked, inspected and calibrated. If required, same to be renewed (ship supply) grease-line passes for bearings to be checked, cleared and made good. Satisfactory load trials to be shown to ship staff on completion of job.	4	NO.S		
	ii) Load sharing of all four aux. alternators with each other to be checked, calibrated and proved at max. load.	1	LS		
2	i) 1563 KVA (1252KW) Shaft Generators: Disconnect, decouple, withdraw rotor, clean with dry air electro cleaner varnished and baked. Insulation to improve ,check and maintain the air gap. Inspection window cover to renew. Slip ring assembly to clean after removing the brush holder. Respective exciter units also to be cleaned varnished and baked. Bearings (Ship supply) to be renewed. Complete generator to be overhauled. Winding temperature sensors to be checked, inspected and calibrated. If required, same to be renewed (ship supply). grease-line passes for bearings to be checked, cleared and made good. Spiroflex couplings to be renewed. Unit to be re-aligned and Satisfactory load trials to be shown to ship staff on completion of job	2	NO.S		
	ii) Load sharing of all shaft alternators with other to be checked, calibrated and proved at max. load.	1	LS		
	ii) resin chock-fasting of shaft-generators to be carried out. All associated materials for Chock-fasting and arrangements including insitu reaming of bolt-holes, fabricatio & fitment of new fit bolts, etc - yard-supply	2	Sets		
3	Re-sleeving of end covers (DE & NDE)	1	Sets		
4	12.5 KVA (90KWe) Emergency Generator Disconnect, decouple, clean , varnish and baked. Slip rings to clean, brush holders to remove and clean. Insulation to improve. Respective exciter units also to be cleaned varnished and baked. Inspection window cover to renew. Bearings (Ship supply) to be renewed. Air gap to be checked and maintained. Complete generator to be overhauled. Winding temperature sensors to be checked, inspected and calibrated. If required, same to be renewed (ship supply) Satisfactory load trials to be shown to ship staff on completion of job.	1	NO.S		

5	The following motors are to be removed after decoupling, transport from ship to workshop. The same to be brought back, refitted in position after repair / overhauling and coupled. The motors are to be dismantled, overhauled completely, bearings to renew ( ship supply), varnished and baked, insulation to improve, damage terminal covers to renew, if bearing housings is loose same to be re-sleeved. for blower motor, dynamic balancing to be done along with fan. Dust seals to be renewed. (any other defect if observed to be rectified).				
	a) Engine Room blowers – 15 KW	6	NO.		
	b) Pump Room blower – 7.5 KW	2	NO.		
	c) A.C.Room blower – 18.5 KW	1	NO.		
	d) Sanitary blower – 2.2 KW	1	NO.		
	e) Dom. Machinery room blower–3.0 KW	1	NO.		
	f) Bow thruster room blower – 4 KW	1	NO.		
	g) Boatswain store blower – 1.1 Kw	1	NO.		
	h) Gland pump motors – 37 KW	7	NO.		
	i) Flushing water pump motor – 18.5 KW	2	NO.		
	j) LTcoolig water pump motor 30 Kw	3	NO.		
	k) Raw Cooling water pump motor- 30 Kw	2	NO.		
	l) Steering pump motor – 7.5 KW	2	NO.		
	m) Fuel booster pump motor – 1.5 KW	2	NO.		
	n) LO Purifier motor 5.3 KW	1	NO.		
	o) FO Purifier motor 3 KW	1	NO.		
	p) M/E Feed pump motor 1.5 KW	2	NO.		
	q) LIFEBOAT MOTOR (P&S) 10KW	2	NO.		
	r) TRAVELLING DECK CRANE MOTOR 30KW	1	NO.		
	s) TRAVELLING DECK CRANE-REEL MOTOR (7.5KW)	1	NO.		
	t) Deck crane hyd. Pump motor (37KW)	1	NO.		
	u) PUMPROOM HOISTING CRANE MOTOR 10KW	1	NO.		
	v) CPP HYDRAULIC PUMP MOTOR 9KW	4	NO.		
	w) BOW THRUSTER MOTOR (750KW)	1	NO.		
	x) JET PUMP MOTOR 500KW	2	NO.		
	y) BILGE & BALLAST PUMP MOTOR 30KW	1	NO.		
	z) FIRE & GS PUMP MOTOR 30KW	1	NO.		

	aa) WORKING AIR COMPRESSOR MOTOR 30KW	1	NO.		
	ab) HYDRAULIC PUMP MOTORS 45KW	4	NO.		
	ac) HYDRAULIC PUMP MOTORS 55KW	2	NO.		
	ad) HYDRAULIC PUMP MOTORS 5.5KW	2	NO.		
	ae) AC COMPRESSOR MOTOR 45KW	3	NO.		
	af) DOMESTIC FRIDGE COMPRESSOR MOTOR 5.5KW	2	NO.		
	ag) ANCHOR WINCH MOTOR FWD & AFT - 30KW	2	NO.		
	ah) ACCOMMODATION LADDER WINCH MOTOR 1.5KW	2	NO.		
	ai) EMERGENCY FIRE PUMP MOTOR 15KW	1	NO.		
	aj) OWS PUMP MOTOR 2.7 KW	1	NO.		
	ak) WASTE WATER PUMP MOTOR 1.1KW	1	NO.		
6	<b>CABLE CONDUITS ON DECK:</b> Cable conduit pipes installed on hopper coaming deck (connected to dredge pipe valves, cylinders, and sensors) found pitted and damaged. These conduit pipes to be renewed with GI Class-C pipes (Dia 80mm) by removing and refitting / relaying connected sensors, JB's, and cables etc.. After renewal and reconnections the ends of conduit pipes to be closed with duct seal putty.	120	Mtr		
7	<b>UPGRADATION OF HYDRAULIC PLC SYSTEM</b>	1	LS		
	Dredge-XVII is equipped with PLC of Allen Bradley belonging to Small Logic Controller (SLC) platform, to manage the Hydraulic operations of dredging equipment. Since, this system is old and obsolete, SLC to be migrated to Latest hardware and latest PLC Platform & renewal of field wiring, relays , sensors if any found defective.				
	Input / Output Configuration to be considered Digital Input - 240 Digital Output - 178 Channels - 8				
	Proposed system shall mainly feature <input type="checkbox"/> Advanced processor <input type="checkbox"/> High speed Ethernet Network which is deterministic and repeatable <input type="checkbox"/> Multitasking <input type="checkbox"/> Real time data management <input type="checkbox"/> High speed data connectivity <input type="checkbox"/> Supports Redundancy <input type="checkbox"/> Scalability				

	<p>Old obsolete Hydraulic Control PLC systems shall be replaced with the latest Platform of Allen Bradley Controllers with all necessary cabling from Hydraulic room panel to Bridge control panel. Industrial/Marine Certified HMI which shall facilitate the personnel to view and set the limits of winches to be installed.</p> <p>On completion of installation &amp; integrating, trials of Hydraulic system to be carried out and satisfactory operation to be proved while sea trials/ dredging operation.</p> <p>Complete work shall be carried out under the supervision of OEM authorized service engineer. (All spares to be procured by Yard thru authorized dealer only)</p>				
8	<p>i) The following switchboards to be inspected, connections and components to be checked. Blow through with hot air, clean and insulation to be improved.(All Spares Ship supply). Damaged rubber insulation to be renewed with yard-supplied materials</p>				
	MSB (Main Switch board)	1	No.		
	EMERGENCY Switch board	1	No.		
	HYDRAULIC Switch board	1	No.		
	AC Room Switch board	1	No.		
	FWD MACHINERY Switch board	1	No.		
	DOMESTIC ROOM Switch board	1	No.		
	<p>ii) Main &amp; Emergency switchboards circuit breaker safety protections such as reverse power, short circuit current, overload and under voltage trips to be tried out and adjusted .(All Spares Ship supply)</p>	8			
9	<b>Instruments &amp; Gauges</b>				
	<p>The following instrumentation systems to be cleaned completely, checked, inspected, overhauled, calibrated, including sensors, transducers, valves, air pipes and renewal of cables etc.,(ship supply). After completion of all repairs / renewals satisfactory trials to be shown to ship staff.</p>				
	a) Echo sounder	2	Nos		
	b) DLM including HVLM	2	Nos		
	c) Gyro Compass	1	Nos		
	d) Pressure & vaccum gauges	7	Nos		
	e) Dopler speed log	1	Nos		
	f) Complete STPI system (existing) to be overhauled and calibrated (P & S)	2	nos		
10	<p>i) Instruments – All Ammeters, Voltmeters, K.W. Meters, Frequency meters, earth-fault-meter in all switchboards to be calibrated against standard instruments. (Quote for each instrument).</p>	50	nos		

	ii) All measuring instruments in wheelhouse, indicating pressure, vacuum position, tank level, overflow duct level, etc. to be calibrated for correct readings. Defective meters/indicators /transmitters /sensors, if any, to be renewed from ship stock.	50	nos		
11	Installation, commissioning & trials of new auto-pilot system- Ship supplied spares	1	LS		
12	Magnetic compass - swinging to be done by authorised person. Deviation card to be issued.	1	LS		
13	Overflow duct level sensor cum transmitter along with wire rope to be removed from place, taken to workshop, serviced and calibrated. Defect parts to be renewed, if any. After servicing and calibration, same to be fitted back along with wire rope with new 'D' shackles and satisfactory trials to be given to ship staff.	1	LS		
14	Withdrawal of old cables and re-laying new electrical cables, as per instructions of ship staff.				
	i) Cable dia upto 15mm	100	Mtr		
	ii) Cable dia 16 - 30mm	100	Mtr		
	<b>TOTAL GROUP-I</b>				



**GROUP - J****GROUP – J: LOAD LINE AND COST PLUS JOBS**

S.NO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT Rs.
	The items which are not covered in any of the drydock work package are to be carryout on “cost plus” basis for which payment will be made as under, subject to the condition that the overall cost claimed is considered reasonable by the Corporation. The Corporation reserves the right to inspect tenders, records to satisfy itself about the <u>reasonableness of the claim:</u>				
1	a) Cost of labour inclusive of all overheads etc., directly employed on the work as reflected in the Work Done Certificate.				
	i) Skilled labour per man-day of 8 Hrs. (normal time) shift.	50	Days		
	ii) Unskilled labour per man-day of 8 Hrs. (normal time) shift.	50	Days		
	b) Materials procurements for repairs				
	Cost for material incorporated in the work as reflected in the Work Done Certificate (in case of material purchase of above Rs.10,000/- value made, supporting vouchers / bills should be enclosed).		Actuals		
	NOTE: Extra 10% on actual material cost only will be paid towards Over head, Handling / Transportation and other incidental charges etc.				
2	<b>Make and supply Items</b>				
	a) MS Finished Products	20	KG		
	b) EN Finished Products	20	KG		
	c) SS Finished Products	20	KG		
	d) Gun metal Finished Products	20	KG		
	e) Bronze	20	KG		
	f) Cast Steel	10	KG		
	g) Aluminium	5	KG		
	h) Manganese steel	5	KG		
	i) Teflon	25	KG		

	NOTE: Finished product weight should be clearly indicated in the work done certificate. Minimum 1 kg / pce will be considered for weight less than one Kg.. If the quantity is more than 5 nos and weight less than 5 Kgs, Minimum 5 kgs can be considered. If Weight more than 5 Kgs, actual weight can be considered. Standard products like Bolts & Nuts, Washers Etc will not be considered under the Make & Supply items. If at all, any special bolts are to be made, shall be considered on specific work orders only.				
3	Rate per Sq.M. of renewal (including removal & surface preparation)				
	a) Ceramic tiles in bath rooms	50	SQM		
	b) Cabin flooring (Vinyle sheet)	50	SQM		
	c) Deck compound 25 mm thick	50	SQM		
4	Removal & refitment in accommodation / other areas per Sq.M.				
	a) Ceiling panel	500	SQM		
	b) Bulk head panel	500	SQM		
	c) Insulation	1000	Sq.M		
	d) Renewal of glass wool 50 mm thick	500	SQM		
5	Renewal of Pipe clamps (GI / MS)				
	a) 8 to 12 mm dia	25	Nos		
	b) 15 mm dia	25	Nos		
	c) 20 mm dia	25	Nos		
	d) 25 mm dia	25	Nos		
	e) 50 mm dia	25	Nos		
	f) 75 mm dia	25	Nos		
	g) 100 mm dia	10	Nos		
	h) 150 mm dia	10	Nos		
	i) 200 mm dia	10	Nos		
	j) 300 mm dia	10	Nos		
	Note: for Heavy duty / Hydraulic clamps 100% extra for the above rates of pipe dia. For PVC Clamps 50% reduction of the above rate.				
6	Remove & refitment of VJ coupling including overhauling				

	a) 40 mm dia	2	Nos		
	b) 50 mm dia	2	Nos		
	c) 80 mm dia	5	Nos		
	d) 100 mm dia	4	Nos		
	e) 150 mm dia	4	Nos		
	f) 200 mm dia	10	Nos		
	g) 300 mm dia	10	Nos		
	h) 500 mm dia	3	Nos		
	<b>Note:</b> only cost of material will be paid extra in case of renewal				
7	Renewal of Following				
	a) GI Plate - Thickness <= 4mm	100	Kgs		
	b) FRP coating - 6mm thick - Including surface preparation	50	Sq.M		
	c) Sounding caps approx. Dia 55 mm along with GI chain to be renewed.	6	Nos		
	d) Rubber packing for weather tight doors, hatch covers & deck openings etc				
	i) 25 x 15 mm / 30 x 20 mm	50	Mtr		
	ii) 40 x 25 mm	50	Mtr		
	e) M/E. AE & Emergency generator laggings (high temperature resistant - insulating blanket of thickness 50mm & Fibreglass lagging cloth)	50	Sq M		
	f) GI Cladding	50	Sq M		
8	a) Fixed port holes of accommodation to be dismantled, cleaned, screw holes to be re-tapped and ft back with yars supplied packing and screws (600 x 450mm). Water tightness of port holes to be proved.	40	Nos		
	b) Rubber beading of Hinged port holes to be renewed with yard supplied packing (600 x 450mm). Water tightness of port holes to be proved after all repairs.	40	Nos		
	c) coaming of port holes to be built-up and grinded to original thickness, screw holes to be drilled and tapped, if required.	20	Nos		
	d) Renewal of Fixed type Port Holes including glass & packing (Size: 600 x 450mm) Type: Class-B, if required.	4	Nos		

9	Rubber packing of wheel house windows (Fixed & hinged) to be renewed and successful leak proof test to be shown to ship staff. Approx. Sizes: 1370 x 1090 - 2 Nos. 1172 x 1090 - 6 Nos. 1400 x 1118 - 2 Nos. 2310 x 1185 - 2 Nos. 1733 x 1090 - 3 Nos. 1640 x 1090 - 3 Nos. 1640 x 275 - 3 Nos.	100	Mtr		
10	Wooden platform on monkey deck (above wheel house) to be renewed with water proof marine ply (18mm) & SS fasteners.	50	Sq.m		
	<b>TOTAL GROUP - J</b>				

**Annexure to Schedule –IV**

A) DCI estimated days for completion of DD repairs of DCI Dredge-XVII = \_\_\_ days (DD ----- days + Afloat ----- days)

B) The total cost implication for Dry dock repairs of Dredge-XVII:

<b>Sl. No</b>	<b>Description</b>	<b>in Rs.</b>
1	GR-A- Dock hire and Service Charges	
2	GR-B- Surface Preparation, Cleaning and Painting	
3	GR-C- Steel Plate Renewal	
4	GR-D- Bottom door repairs	
5	GR-E- Propellers, Rudders, Bow thrusters and CPP System	
6	GR-F- Engine Room Machinery	
7	GR-G- Deck Machinery, Hyd. / Obd. Valves & pipelines	
8	GR-H- Pump room machinery and dredging equipment	
9	GR-I- Electrical Equipment	
9	GR-J- Cost Plus Jobs	
10	Discount	
11	Total Amount after discount	

## UNDERTAKING

Tender No. DCI/TECH/117/12/2018-19 dated .2018  
Dry-Dock repairs of DCI Dredge-XVII

**GCC- SCH-I, Clause No 1 F:** As per the Tender requirements, we hereby state that we have strictly quoted for all items in the document as provided on the website only. If we fails to quote for any item and such action is observed at any stage, DCI have a right for rejection of tender.

**SC- SCH-II, Clause No.13:** As per the Tender requirements we hereby state that we have not made any payment or illegal gratification to any person/Authority connected with the Bid process so as to influence the Bid process and have not committed any offence under the prevention of Corruption Act in connection with the Bid.

**SC- SCH-II, Clause No.14:** We also state that no payments have been made nor proposed to be made to any intermediaries in connection with Bid.

**SC- SCH-II, Clause No. 15:** We hereby state that entire dry dock repairs (including variation of 30%) will be completed within the contract period.

Signature of Tenderer & Seal

**NOTE:** Alternatively the details of payment made /proposed to be made may be furnished at **SC- SCH-II, Clause No.14.**

**SHIPYARD QUALIFICATION TEMPLATE****PART – I: GENERAL INFORMATION ON SHIPYARD AND MANAGEMENT**

<b>S.NO</b>	<b>Element</b>	<b>Description Required</b>
1	Name of the Organization & address	
2	Details of the Contact Person	
3	Year Established	
4	Type of Organization  Proprietary/Partnership /Public Limited company/ Government PSU/Others (please specify)	
5	Board of Directors	
6	Organization Chart	
7	Major Ship repairs/refits/Dry docking in the last five years	
8	Details of Collaboration if any	
9	Annual Turnover in the Last Three Years	
10	Bankers	
11	Details of Capacity and number of slots available for repairs / Dry docking	
12	Details of Applicable statutory Taxes Paid in the Last 3 years as well as details of pending claims of the tax/revenue authorities including provisions made for the same.	
13	Warehouse  To indicate area and facilities available for warehousing.	
14	Logistics  Accessibility/location of yard with respect to procurement / location of nearest classification society & MMD offices	
15	Permanent Employees  Employees on pay-roll to be indicated	
16	Dedicated Staff in Quality Control Department	
17	Dedicated staff in Safety (HSE) Department	
18	After-Sales personnel  Dedicated personnel to be indicated	

**PART – II: TECHNICAL QUALIFICATION TEMPLATE**

**A copy of the template certified/verified by any RO of the Government of India who is an IACS member to be submitted along with the bid.**

SI. No	ITEM / PARAMETER	CAT "A"	CAT "B"	CAT "C"	CAT "D"	CAT "E"	Remarks	
<b>A. FACILITIES / CAPABILITY</b>								
1	Dry docking / Repair Capacity / Repair Capability	Shipyards to meet the basic requirements on the infrastructure / expertise as indicated below						
		Yard to have sufficient steel renewal capacity.  Yard to have adequate facilities dust and moisture free enclosed space with humidity control. for FRP hull repairs.  For Aluminium Hull repair yard to have adequate welding machines and qualified welders for aluminium welding.		Yard to have steel renewal capacity of minimum 5 Tons per day for the above categories.  Yard to have adequate facilities dust and moisture free enclosed space with humidity control.  For Aluminium Hull repair, yard to have adequate welding machines and qualified welders for aluminium welding.				
	Details to be provided							
2	Drydock / Shiplift / other facilities	Dimensions to be commensurate with ship size	Dimensions (L x B) to be commensurate with ship size	Dimensions (L x B) to be atleast (250 x 36 M).	Dimensions (L x B) to be atleast (300 x 52 M).	Dimensions (L x B) to be atleast (350 x 64 M).		
	Details to be provided							



SI. No	ITEM / PARAMETER	CAT "A"	CAT "B"	CAT "C"	CAT "D"	CAT "E"	Remarks
3	Capacity of cranes at repair dock / Slipway	Capacity to be at least 1 x 15 T EOT/Mobile	Capacity to be at least 1 x 15 T EOT/Mobile	Capacity to be at least 1 x 40 T EOT/Mobile/Gantry	Capacity to be at least 1 x 60 T EOT/Mobile/Gantry	Capacity to be at least 1 x 60 T EOT/Mobile/gantry	
	<b>Details to be provided</b>						
4	Quay / Water front / repair berth and minimum depth available	a) Length of quay / Water front / berth available for afloat repair to be up to 100M, with a depth of 5 m minimum / commensurate to the draft of the vessel	a) Length of quay / Water front / berth available for afloat repair to be between 100- 150 M with a minimum depth of 5 m / commensurate to the draft of the vessel	a) Length of quay / Water front / berth available for afloat repair to be at least 250 M with a minimum depth of 6 m / commensurate to the draft of the vessel	a) Length of quay / Water front / berth available for afloat repair to be at least 300 M with minimum depth of 7 m / commensurate to the draft of the vessel	a) Length of quay / Water front / berth available for afloat repair to be at least 350 M with minimum depth of 8 m / commensurate to the draft of the vessel	
	<b>Details to be provided</b>						
	Afloat Repair	(b) Nos. of vessels which can be simultaneously berthed for work to be indicated.	(b) Nos. of vessels which can be simultaneously berthed for work to be indicated.	(b) Nos. of vessels which can be simultaneously berthed for work to be indicated.	(b) Nos. of vessels which can be simultaneously berthed for work to be indicated.	(b) Nos. of vessels which can be simultaneously berthed for work to be indicated.	Double banking may also be considered while indicating nos. of vessels
	<b>Details to be provided</b>						

SI. No	ITEM / PARAMETER	CAT "A"	CAT "B"	CAT "C"	CAT "D"	CAT "E"	Remarks
		(c) Cranes available at quay to be at least 1 x 10 T	(c) Cranes available at quay to be at least 1 x 10 T	(c) Cranes available at quay to be at least 2 X 10 T	(c) Cranes available at quay to be at least 2 X 20T	(c) Cranes available at quay to be at least 2 X 40T	
	Details to be provided						
5	Detailed design and Engineering	Yard to have adequate in-house detailed design and engineering capability to undertake the engineering requirements as per the scope of work.					Mandatory for Category C, D and E yards.
	Details to be provided						
6	Detail of Automation / Control / Electronic/Hydraulic Engineering	Yard to have adequate in-house capability to handle shipboard automation / control / electronic jobs. Collaboration with relevant firms / OEMs if necessary to be indicated for specialised jobs.					Mandatory for Category C, D and E yards.
	Details to be provided						
7	Surface preparation / blasting/ Painting	Yard to have sufficient equipment / facilities to cater to the requirement as per the scope of work in the stipulated time frame.					
	Details to be provided						
8	Machinery parts recondition shop	For Category C, D & E vessel, yard is required to have a machine shop (with crane facility) to undertake the repairs to machinery, Shafting, and auxiliary equipment. Collaboration with OEM to undertake the jobs in the yard will be added advantage. For Cat A & B vessel outsourcing of machining jobs will be acceptable.					

SI. No	ITEM / PARAMETER	CAT "A"	CAT "B"	CAT "C"	CAT "D"	CAT "E"	Remarks
	Details to be provided						
<b>B. STANDARDS</b>							
1	Quality control / Assurance	To have valid ISO 9001: 2008 Quality Management system Certificate.	To have valid ISO 9001: 2008 Quality Management system Certificate.	To have valid ISO 9001: 2008 Quality Management system Certificate.	To have valid ISO 9001: 2008 Quality Management system Certificate.	To have valid ISO 9001: 2008 Quality Management system Certificate.	
	Details to be provided						
2	Safety Management System	Yard to be registered under Factories Act. In house safety checks and records thereof to be available for inspection. To have safety policy in force.	Yard to be registered under factories act. In house safety checks and records thereof to be available for inspection. To have safety policy in force.	To have valid OSHAS 18001 Occupational Health and Safety Management System certification.	To have valid OSHAS 18001 Occupational Health and Safety Management System certification.	To have valid OSHAS 18001 Occupational Health and Safety Management System certification.	
	Details to be provided						
3	Environment Management System	--	--	To have valid ISO 14001 : Environment Management Certificate	To have valid ISO 14001 : Environment Management Certificate	To have valid ISO 14001 : Environment Management Certificate	
	Details to be provided						
<b>C. FINANCIAL CRITERIA</b>							

SI. No	ITEM / PARAMETER	CAT "A"	CAT "B"	CAT "C"	CAT "D"	CAT "E"	Remarks
1	The shipyard should have a positive Net worth or alternatively may provide a letter of comfort from the Banks / Financial Institutions ensuring funding for the repair of vessels.						

\*\*\*\*\*

(FORMAT FOR COMFORT LETTER FROM BANK)

<Bank Name & Address>

Dear Sirs,

This is to confirm that our Client, \_\_\_\_\_ <Name of Shipyard> maintains bank accounts with us and is in good standing with our bank.

As informed by our Client, for bidding for the \_\_\_\_\_ (Name of Project), the Client has to submit a Comfort letter from the bank.

At his instructions, we, (bank name & address), with full authority and mandate hereby confirm that said Client is financially able to mobilise an amount of Rs. \_\_\_\_\_ being (50%) of the Contract value for which the bank will provide financial assistance as required by the Client

We, (client's bank), confirm to transfer the referenced amount as per instructions of our Client.

We certify that our Client, named above, has credit facilities with our bank to complete the proposed (Name of project) within the time period specified.

Our Client hereby gives authority to the Ship Owner to procure usual banker's references from the authorised officer of the Bank <Full name and designation of the bank officer>.

Yours sincerely,

.....  
Signature by a senior level bank officer

Full name of the signatory: .....

Designation of the signatory:.....

Clients' Name as written in account:.....

Account No / IBAN:.....

Bank Telephone No:.....

Bank's Fax No:.....

Bank SWIFT / Sort Code:.....

Bank stamp / seal: .....

### **ANNEXURE-III**

#### **AGENCY / HUSBANDARY SERVICE:**

Yard is requested to arrange Agency/ Husbandry services on behalf of DCI for the following:

1. Arranging Tug & Pilotage for shipping Movement as per Call
2. Conveyance to Yard & Vessel as per Call
3. CTM Delivery to Vessel (Cash To Master)
4. Facilitating Signing On – Signing Off, Immigration and Crew change arrangements
5. Arranging accommodation & Air Tickets to Ship Crew as required
6. Medical facility to Ship Crew
7. Custom Clearance and handing/transport of material
8. Ship's communication & courier service
9. Arranging Pest Control services and PHO visits as per call
10. Sanitation & Laundry Services
11. Miscellaneous services, if any, as per the requirement certified by Attending Superintendent.

Separate Quotation to be submitted by the Yard (L-1) for Agency Services for acceptance of DCI in this regard.

**NOTE: All the supporting documents and Vouchers for above works to be certified by Ship (Master) and Attending Superintendent for Re-imburement.**

**FORMAT of Work Done Certificate (WDC)****DCI work scope :**

Sl. No	Description	Qty	Unit
1	<b>Work scope as per NIT (Original):</b> GROUP-B – Sl. No. 1 (a) Hard scrapping marine growth (under water area) up to light load line.	3744	Sq.M
2	<b>Work scope as per NIT (Original):</b> GROUP-C – Sl. No. 1 Shell plate above water level	03	Ton
3	<b>Work scope as per NIT (Original):</b> GROUP-F – Sl. No. 1 A (b) Bilge pump NR Globe valve - 125 mm - Underwater sea suction & overboard valves lid to be opened, valve bonnet to be dismantled, valve to be cleaned, ground/ lapped, reassembled & boxed up with new packing & existing bolts & nuts. All valves to be pressure tested.	01	No

**The work done certificate should be in-line with DCI work scope with remarks as mentioned below: (Example for above jobs)**

Sl. No	Work package Ref	Description	Qty	Unit	Remarks
1	GR- B SI. No. 1 (a)	Hard scrapping marine growth (under water area) upto light load line <b><u>(Describe actual work done completely)</u></b>  Additional works against ADL No. (If any): ----- Ship supplied Spares/Stores used : ----- Yard supplied Spares/Stores used (Cost Extra) : -----	3744	Sq.M	Completed
2	GR-C – SI. No. 1	Shell plate above water level: <b><u>(Describe actual work done completely)</u></b> <u>Location / Frame No.</u> Dimensions of renewal as follows: 1) L mm X B mm X Thk mm - NO. Additional works against ADL No. (If any): ----- Ship supplied Spares/Stores used : ----- Yard supplied Spares/Stores used (Cost Extra): -----	03	Ton	Completed
3	GR-F – SI. No. 1 A (b)	GROUP-F Bilge pump NR Globe valve - 125 mm - Underwater sea suction & overboard valves lid to be opened, valve bonnet to be dismantled, valve to be cleaned, ground/ lapped, reassembled & boxed up with new packing & existing bolts & nuts. All valves to be pressure tested. <b><u>(Describe actual work done completely)</u></b> Additional works against ADL No. (If any): ----- Ship supplied Spares/Stores used : ----- Yard supplied Spares/Stores used (Cost Extra): -----	01	No	Completed

## ANNEXURE TO FINANCE BID

1	The quoted rates for all jobs should be inclusive of access works, in way jobs / connected work, relevant works & associated jobs, staging, fire patrol, security, necessary equipment and other preparatory works as required for doing each job. Also rates shall include transportation of items for repairs and back.
2	For hot work, the surrounding area is to be completely cleaned and required number of fire sentries be posted with fire extinguishers. The rate for steel renewal includes fire sentries.
3	Number of days at Group A - Sl.No.1 (ii), 2, 5 (ii). 6(i), 7 (i), 8, 9, 11, 13 & 17 are to be filled by the yard as per the quoted days and amount is to be put accordingly.
4	Security watch shall be provided by the yard during the entire repair period and same will be yard account only.
5	Temporary lighting, compressed air, ventilation fan and heating lamps provided for repairs, if any, shall be to the account of yard and will not be considered separately.
6	Cement level to be made at the main deck edge with carry away pipes to keep the vessel's hull dry and free of dropping water while painting is in progress.
7	Wooden plugs to be fitted to all scupper pipes before fitment of carry way pipes.
8	All chemicals and consumables for degreasing & cleaning are Yard supply and at Yard cost.
9	All openings of engine room, pump room, deck fittings and all the systems are well protected from grit prior to blasting by covering with polythene sheets, canvas covers. Master and CEO clearance to be taken prior commencement of blasting.
10	Tanks are to be ventilated by providing adequate number of blowers before man entry. No separate cost will be payable for this account.
11	Painting- Greasing/Degreasing of Anodes, staging and any other facility used for the works will not be paid extra and are deemed to be included in the cost of painting.
12	Painting - Colour of all the coats should be contrasting to enable differentiation between one coat and another.
13	Actual cost of Paint + 10% shall be paid by DCI. Total cost (estimate) of paint is to be indicated separately. Original passed Paint procurement Vouchers / copy of invoice along with proof of payment are required to produce for actual Quantity of paint consumption, for settlement of Yard's Invoice
14	Painting - Only Tin free antifouling SPC is acceptable.
15	Painting - Paint certificate to be issued by OEM and valid for 36 months.
16	Yard shall rig up staging initially to inaccessible areas for taking UTG, blasting etc. so that steel renewals can be undertaken independently
17	Repairs if any recommended by IRS after survey of anchor cables and anchor (crown pin renewal in case of excessive clearances) swivel and anchor flukes shall be attended.
18	Allow plug of scuppers, Cover anodes, echo sounder, DLM transducers, etc., with grease while undertaking steel renewals / blasting and painting, etc.
19	All grid blasting inside hopper and hull exterior are to be completed initially, so that the same activity does not interfere with other works.
20	For doing work on Hopper under deck longitudinal I-beams, crane to be re-positioned to take up repairs.
21	Special care is to be taken while renewing hopper deck hopper plates, deck longitudinal beams to prevent damage to foundations of bottom door hydraulic cylinders, sagging of deck, bend etc.
22	Do not delay bottom door work due to steel work on top.
23	All welders of the Yard engaged in work including those employed by sub-contractors must have valid certificates from IRS/LRS. Certificate copies shall be submitted to Master immediately before commencement of work.
24	All plates used must be Lloyds Grade-A and serial number of plates with certificate must be submitted to Master before fitment. All plates must have a coat of primer before fitment.
25	All electrodes used and welding procedure must be approved by IRS/LRS.



26	All welding equipment including cables & holders must be in a fit state for use.
27	Weldings to be tested by DP/MPI/X-RAY as required by the Surveyors.
28	Tanks in which steel renewal was done to be pressure tested as required by surveyors. No separate cost for staging, pressure testing of the tanks shall be allowed.
29	The Rates quoted for all jobs must be inclusive of access work, connected work, relevant work, associated jobs, staging, fire patrol, security, necessary equipment and other preparatory works as required for doing each job. Also rates shall include transportation of items for repairs and back.
30	Removal and re-fitment of Dredge pipes are not part of access work and will be considered to pay 25% of renewal rates of Dredge pipes.
31	For main deck steel renewal, insulation may have to be removed, wherever required. Cables and electrical equipments must be protected with tin sheets and fire proof cloth while gas cutting / welding.
32	All hydraulic pipelines, dredge pipelines, vent pipes are to be secured with clamps.
33	Proper precautions are to be taken by the yard while renewing steel plates below main engines, dredge pumps, thrust blocks, gear boxes and Major equipments etc to avoid any misalignments, sagging etc.
34	As per work scope, all areas to be UT gauged, examined on docking of the vessel within a week and freeze the scope of work in consultation with IRS, ship staff and Attending Superintendent.
35	<b>Yard to provide a detailed action plan along with Bar Chart</b> and to quote steel grade, total steel quantity and renewals/ repairs to all locations with shell expansion drawings.
36	Steel renewals are to be clearly mentioned in Work done Certificate (i.e. Size of the plate renewal (Length, width & thickness), Number of plates renewed and Location of renewal etc. Accordingly, Master/CEO & Attending Supdt. Certification to be obtained. Lumpsum quantities (for example: 500kgs or 2 tons renewed) will not be considered and such claims will not be accepted. Hence, proper care must be taken while preparing work done certificates. No additional percentage (%) towards wastage / bending etc shall be considered.
37	Pipe renewal to be clearly mentioned in WDC for each occasion like location of renewal, size of pipe renewal, length of pipe renewal and no. of pipe fittings renewed. Accordingly, Master/CEO & Attending Supdt certification to be obtained. Lumpsum quantities (i.e. 50 dia - 100 mtr renewed or 150mm dia - 50 mtr renewed) will not be considered and such claims will not be accepted. Hence, proper care must be taken while preparing Work done certificates.
38	Minimum of 10 kgs / Location steel renewal will be considered. For minimum allowance also the size of the plate, number of plates and location where renewed to be specified clearly in the Work done certificates, failing which such claims will not be considered. Pipe renewal minimum 1 mtr will be paid.
39	For pit build-up of size upto 50X50mm will be only be considered as pits and size beyond 50X50 mm will be treated as weld building. Accordingly, weld build up rate/kg will be considered for settlement of claims.
40	Renewal of pipeline less than one meter will be paid as one meter and above one meter will be paid as per actuals.
41	Yard not to depend on ship's hydraulic system for testing bottom doors after completion of repairs. Yard has to arrange their own power pack for bottom door repairs.
42	After repairs, all the above items are to be tried out for satisfactory operation.
43	Bottom doors any misalignment to be corrected to prevent leakage of material.
44	Overflow duct after renewal of the Lip seal, to be hosed down with water jet to ensure proper sealing. Any misalignment between movable & Fixed duct to be rectified.
45	All bottom doors before/after fitment of rubber seals, chalk test to be carried out and clearances to be adjusted/ rectified until satisfactorily trials.
46	Renewal of BD guides to be done in one piece. No joints are allowed
47	After repairs/ renewals / servicing both Kort Nozzles and Rudders are to be tested for trouble free operations. Defects including misalignment and oil leaks if any found are to be corrected.
48	If required, yard shall arrange OEM for stern tube seals and CPP propeller. Service engineer charges will be paid at actuals + 10%.
49	After repairs, all the above items are to be tried out and shown to the IRS surveyor as required.

50	Rate shall include sea trials of Kort Nozzle, Rudders, Bow thrusters, Propellers.
51	Renewal of stub pipes are to be identified as per UTG report and respective valves are to be removed for overhauling/repairs/survey as specified in the work scope. After renewal of the stub pipes, respective valves are to be fitted back in position and tried for satisfactory operation.
52	Over board valves stub piece & filter housing to be UT gauged & readings are to be submitted to ship staff.
53	After completion of all repairs satisfactory trials to shown to shipstaff.
54	All above items shall be quoted considering assembling back with new / dismantled / reconditioned parts, fitting in position, clamping and satisfactory trials.
55	Hydraulic pipelines to winches to be blanked before opening winches, Hyd pipelines to be secured with clamps.
56	Hydraulic cylinders rams chrome plating to be carried out at extra cost, if reqd.
57	The actual number of Bushes & Pins will be determined after dismantling.
58	After repairs, all the above items are to be tried out for satisfactory operation.
59	OEM service engineers to be arranged by the yard with DCI approval. The Service engineer charges will be paid to the yard with 10% mark-up i.e., actuals + 10 %.
60	Necessary assistance to be provided by the yard timely to the OEM as required.
61	After repairs, all the above items are to be tried out for satisfactory operation.
62	Rate shall include sea trials of main engines, Aux. Engines, Dredge pimps, Jet Pumps and all other equipments & Systems which are overhauled.
63	Rate should be inclusive of all consumables & cleaning materials, etc. But excluding Freon gases/ refrigerant, nitrogen, gaskets.
64	After overhauling Pneumoflex couplings to be pressure tested for leaks and travel after assembly in the yard, and also to check the same after fitment in position and to satisfactory trials.
65	Crane, fork-lift charges towards handling from vessel to workshop and back are applicable where weight of single item is more than 1000 Kgs.
66	All tools, special tools, jigs and fixtures which are required to arrange / provide by yard at their cost for carrying out jobs as per tender and no separate cost & time shall not be considered.
67	Cost of materials including paint incorporated in the work as reflected in work done certificate (in case of material purchase of above Rs. 10,000/- value made, supporting vouchers / bills i.e., Original Passed Invoice or Copy of invoice along with proof of payment should be enclosed. Extra 10% on actual material cost only will be paid towards overhead handling / transportation and other incidental charges etc.,
68	Finished product weight should be clearly indicated in the work done certificate. Minimum 1 Kg/piece will be considered for weight less than one kg. If the quantity is more than 5 No's and weight less than 5 Kgs, Minimum 5 Kgs can be considered. If weight more than 5 Kgs, actual weight can be considered. Standard Products like Bolts & Nuts, washers etc., will not considered under the make & supply items. If at all, any special bolts are to be made, shall be considered on specific work orders only.
69	Lifeboats to be offloaded and secured in safe place with proper covering in yard premises during course of dry dock repairs and same to be connected back to vessel after completion of repairs. No charges will be payable separately for life boats offloading, connecting and securing.