DREDGING CORPORATION OF INDIA LIMITED
H.O., VISAKHAPATNAM

Ref: DCI/TECH/112/12/2020-21 Date: 30-06-2020

CORRIGENDUM-1

Sub: Tender for Dry Dock & afloat repair of DCI Dredge XII.

Ref: (i) NIT: DCI/TECH/112/12/2020-21, dt: 26-06-2020.

Referring to above tender for "Dry dock & afloat repairs of DCI Dredge XII" following clauses have been amended,

Sl No.	Clause No.
1	Clause No. 02, sub clause (vi) of NIT
2	Clause No. 04 of Schedule-I, GTC
3	Clause No. 07 of Schedule-I, GTC
4	Annexure to schedule IV
5	Group A, of Schedule-IV

The above amended clauses are to be read as per annexure-I of Corrigendum for needful submission of the bids.

All other terms & condition of tender remains unchanged.

30/06/2020

HOD (TECH)-1
Dredging Corporation of India Limited.

30/6/20

Existing	Amended
NIT : Clause No. 02, Sub clause (vi) i. 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.	**NIT: Clause No. 02, Sub clause (vi)** i. Technical Bids of Yards should clearly indicate the number of days in dry dock & number of days of afloat repairs, trials and number of days for tow (From Kolkata to designated place of yard). 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.
GTC: Clause No. 04, of Schedule 1 **PERFORMANCE FACTOR:** The Performance Factor for all the yards participating in the tender will be considered as 1.0.	**GTC: Clause No. 04, of Schedule 1** **PERFORMANCE FACTOR:** The performance factor for new yards (if any) will be considered as 1.0 and other yards (who were executed DCI Vessel's dry dock repairs). The performance factor will be arrived at by dividing the total number of days/time taken by yard with the contractual number of days during the immediate preceding dry dock repairs (average of last 3 projects) excluding the days on account of DCI and force majeure.

Existing

GTC: Clause No. 07, of Schedule 1

07. METHOD OF EVALUATION OF TENDER:

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

Sl.No	Item	
(a)	Basic Repair Cost	XXX.XX
(b)	Standing cost of the vessel per day	6.0 Lakhs
(c)	DCI estimated days	45 days
(d)	No. of days quoted by the yard	XX days
(e)	Item (d) X Performance factor (PF)	XX days
(f)	Item (e) X standing cost	XXX.XX
(g)	Passage time = to and fro from the repair yard (No. of days)	XX days
(h)	Voyage cost = Item (g) x (Standing Cost per day + fuel cost per day)	XXX.XX
(i)	Cost for additional days = (Item (d) – Item (c)) x Standing Cost per day x Performance factor	XXX.XX
(j)	Total Evaluated Cost: (a + f + h + i)	XXX.XX

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

I. Average speed of the tow vessel during the tow period is considered as 04 knots/hour. DCI Dredge XII will be towed as manned tow by TUG, the fuel consumption for Dredge XII is considered as 1.5 KL of HF HSD per day during voyage period.

II. The dredger is presently in KPD-Kolkata and after completion of repairs the dredger will be deployed at HALDIA. (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

Amended

GTC: Clause No. 07, of Schedule 1

07. METHOD OF EVALUATION OF TENDER:

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

Sl. No.	Item	
a)	Basic repair cost	XXX.XX
b)	Standing cost per day	6 Lakhs
c)	DCI estimated days	45 days
d)	No. of days quoted by the yard (For repairs only)	XX days
e)	No. of days quoted by the yard (For towing only)	XX days
f)	No. of days (For return journey from yard to Haldia only)	XX days
g)	Item (d) X performance factor	XXX.XX
h)	Item (g) X (standing cost)	XXX.XX
i)	Item (e) X (Standing cost per day + Fuel cost per day)	XXX.XX
j)	Item(f) X (Standing cost per day + Fuel cost per day)	XXX.XX
k)	Towing charges	XXX.XX
l)	Total evaluated cost (a+ h + i + j +k)	XXX.XX

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

I. For evaluation of tender, towing period in days, will also be considered.

II. Average speed of the tow vessel during the tow period is considered as 04 knots/hour, and towing period will be calculated accordingly. However if yard quotes more days than DCI estimate, then total quoted days by yard for towing will be considered for evaluation purpose.

III. DCI Dredge XII will be towed as manned tow by TUG, the fuel consumption for Dredge XII during towing period is considered as 1.5 KL of HF HSD per day.

IV. Average speed of DCI Dredge XII during the sailing period after repairs {from

Existing	Amended
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.	yard to haldia} is considered as 10 knots/hour, and the fuel consumption of the vessel is considered as 17 KL of HF HSD per day. V. The dredger is presently in KPD-Kolkata and after completion of repairs the dredger will be deployed at HALDIA. (Actual location may vary as per operational requirement). VI. 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. VII. 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. Agency/husbandry services charges submitted by the yard will not be considered for the purpose of price evaluation.

Existing

Annexure to Schedule –IV

A) Estimated days for completion of DD repairs of DCI Dredge-XII= days (DD ------ days + Afloat ----- days)

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

Sl. No	Description	in Rs.
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	

Amended

Annexure to Schedule –IV

A) (i) Estimated days for completion of DD repairs of DCI Dredge-XII= ____days (DD ------ days + Afloat ----- days)

(ii) Estimated days for tow of DCI Dredge XII from KPD-Kolkata to destination yard: _____days.

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

Sl. No	Description	in Rs.
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	

Existing	Amended

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	29	Day		
3	Wharfage	15	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	29	DAY		
7	i) Continuous Shore power supply for total period – AC 50Hz., 3 phase 415V; Est. for 3,000 KWH , Cost including Connection & Disconnection	180000	KWH		
8	Cooling Water supply to refrigeration/ AC Machinery (per day per line) 2 ½ Braided hose – 2 lines , Cost including Connection & Disconnection	30	Day		
9	Sea water supply to ballast tanks of dredger, Cost Connection &	500	TON		

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	29	Day		
3	Wharfage	15	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	29	DAY		
7	i) Continuous Shore power supply for total period – AC 50Hz., 3 phase 415V; Est. for 3,000 KWH , Cost including Connection & Disconnection	180000	KWH		
8	Cooling Water supply to refrigeration/ AC Machinery (per day per line) 2 ½ Braided hose – 2 lines , Cost including Connection & Disconnection	30	Day		
9	Sea water supply to ballast tanks of dredger, Cost Connection & Disconnection	500	TON		

Existing	Amended

	Disconnection												
10	Fire Patrol (Rate per head = 8 Hours per Shift.) Est. for 3 men per Shift x 2 shifts a day	270	Man Days				10	Fire Patrol (Rate per head = 8 Hours per Shift.) Est. for 3 men per Shift x 2 shifts a day	270	Man Days			
11	Fire line to be kept charged (3 bar) all the time when the vessel is in dry-dock.(2 lines) , Cost including Connection & disconnection;	30	Days				11	Fire line to be kept charged (3 bar) all the time when the vessel is in dry-dock.(2 lines) , Cost including Connection & disconnection;	30	Days			
12	a. Fresh water supply from shore line – Est.for 20 tons per day, Cost including Connections and disconnections	1200	TON				12	a. Fresh water supply from shore line – Est.for 20 tons per day, Cost including Connections and disconnections	1200	TON			
13	Galley refuge removal and disposal (basing on actual no of days)	45	DAY				13	Galley refuge removal and disposal (basing on actual no of days)	45	DAY			
14	Gas free inspection by Shipyard Personnel	25	Tanks				14	Gas free inspection by Shipyard Personnel	25	Tanks			
	Gas free inspection by Govt. Authorised Inspection, Permits for	3	Visit					Gas free inspection by Govt. Authorised Inspection, Permits for	3	Visit			
15	Crane charges for handling Ship's provision/stores.						15	Crane charges for handling Ship's provision/stores.					
	i) up to 10 tones capacity	40	HOUR					i) up to 10 tones capacity	40	HOUR			
	ii) above 10 tons	40	HOUR					ii) above 10 tons	40	HOUR			
16	Fitting wooden plugs with carry away pipe on scupper pipes	30	NO.S				16	Fitting wooden plugs with carry away pipe on scupper pipes	30	NO.S			
17	Providing Ship to shore telephone (land line) for local calls; Est. for 1 phone (if required), Cost including Connections and disconnections	45	DAY				17	Providing Ship to shore telephone (land line) for local calls; Est. for 1 phone (if required), Cost including Connections and disconnections	45	DAY			
18	Compressed air supply from shore main:						18	Compressed air supply from shore main:					
	i) Compressed air supply per hose per day, Cost including	30	Shift					i) Compressed air supply per hose per day, Cost including Connection & disconnection.	30	Shift			

Existing						Amended						
	Connection & disconnection.					19	Carry away pipes to be provided on all sea discharges to prevent flow on shipside.	10	Nos			
19	Carry away pipes to be provided on all sea discharges to prevent flow on shipside.	10	Nos			20	a) Sewage Disposal Sanitary carry away pipes from vessel's toilets, bathrooms are to be fitted for entire period of docking.	30	Days			
20	a) Sewage Disposal Sanitary carry away pipes from vessel's toilets, bathrooms are to be fitted for entire period of docking.	30	Days				OR					
	OR						b) Collection of sewage waste into shore tank and disposal on load basis (3cu.m per load).	30	LOAD			
	b) Collection of sewage waste into shore tank and disposal on load basis (3cu.m per load).	30	LOAD			21	Arranging towing of vessel Dredge XII from KPD Kolkata to place of yard. (Refer Sl No. 20 of SCHEDULE-II, of Special conditions)	1	L.S.			
	TOTAL FOR GROUP A						**TOTAL FOR GROUP A**					

Amended Annexure to Schedule –IV

A) (i) Estimated days for completion of DD repairs of DCI Dredge-XII= ____days (DD ------ days + Afloat ----- days)

(ii) Estimated days for tow of DCI Dredge XII from KPD-Kolkata to destination yard: _____days.

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

Sl. No	Description	in Rs.
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	

Amended GROUP-A for submission

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	29	Day		
3	Wharfage	15	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	29	DAY		
7	i) Continuous Shore power supply for total period – AC 50Hz., 3 phase 415V; Est. for 3,000 KWH , Cost including Connection & Disconnection	180000	KWH		
8	Cooling Water supply to refrigeration/ AC Machinery (per day per line) 2 ½ Braided hose – 2 lines , Cost including Connection & Disconnection	30	Day		
9	Sea water supply to ballast tanks of dredger, Cost Connection & Disconnection	500	TON		
10	Fire Patrol (Rate per head = 8 Hours per Shift.) Est. for 3 men per Shift x 2 shifts a day	270	Man Days		
11	Fire line to be kept charged (3 bar) all the time when the vessel is in dry-dock.(2 lines) , Cost including Connection & disconnection;	30	Days		
12	a. Fresh water supply from shore line – Est.for 20 tons per day, Cost including Connections and disconnections	1200	TON		
13	Galley refuge removal and disposal (basing on actual no of days)	45	DAY		
14	Gas free inspection by Shipyard Personnel	25	Tanks		
	Gas free inspection by Govt. Authorised Inspection, Permits for	3	Visit		
15	Crane charges for handling Ship's provision/stores.				
	i) up to 10 tones capacity	40	HOUR		
	ii) above 10 tons	40	HOUR		
16	Fitting wooden plugs with carry away pipe on scupper pipes	30	NO.S		

17	Providing Ship to shore telephone (land line) for local calls; Est. for 1 phone (if required), Cost including Connections and disconnections	45	DAY		
18	Compressed air supply from shore main:				
	i) Compressed air supply per hose per day, Cost including Connection & disconnection.	30	Shift		
19	Carry away pipes to be provided on all sea discharges to prevent flow on shipside.	10	Nos		
20	a) Sewage Disposal Sanitary carry away pipes from vessel's toilets, bathrooms are to be fitted for entire period of docking.	30	Days		
	OR				
	b) Collection of sewage waste into shore tank and disposal on load basis (3cu.m per load).	30	LOAD		
21	Arranging towing of vessel Dredge XII from KPD Kolkata to place of yard. (Refer Sl No. 20 of SCHEDULE-II, of Special conditions)	1	L.S.		
	TOTAL FOR GROUP A				

DREDGING CORPORATION OF INDIA LIMITED
"Dredge House" HB COLONY MAIN ROAD
VISAKHAPATNAM-530 013 (INDIA)

Phone: 91-891-2871378/2871395
Mobile: 09989925238
Fax : 91-891-2560581/2565920
E-mail: hodtech@dcil.co.in

NIT REF: DCI/TECH/112/12/2020-21 Date:26.06.2020

NOTICE INVITING TENDERS

1. Sealed tenders are invited from reputed Indian / Foreign Shipyards for attending drydock & afloat repairs of **DCI DREDGE-XII**. The vessel requires to be dry-docked **for an estimated period of 45 days by End July-2020 / 1st week of Aug 2020.**

   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 OR 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 ₹ **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 ₹ **1047000.00** (Indian Rupees Ten Lakhs forty seven 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 **06.07.2020.**

7. Further instructions are given in the tender documents.

8. Bidders should have their own drydock / leased dry dock with full repair infrastructure and relevant experiences in Dredgers repairs and confirm the availability of dock space to positively dry dock the vessel by **End July 2020 /1st week of Aug 2020.**

HOD(TECH)-1 26/06/20

DREDGING CORPORATION OF INDIA LIMITED
(A Government of India Undertaking)
"Dredge House" HB COLONY MAIN ROAD
VISAKHAPATNAM-530 013

DCI/TECH/112/12/2020-21

Date: 26.06.2020

To,

M/s.

Dear Sirs,

Sub: Invitation of tenders for drydock & afloat repairs of **DCI DREDGE-XII, IMO NO: 8818037**

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1. Dredging Corporation of India Ltd., a Public Limited Company under the consortium of four Indian Major Ports (VPT, JNPT,DDPT & PPT) owning a fleet of dredgers, is calling for tenders to carry out planned drydock & afloat repairs of DCI DREDGE-XII , by 1st week of AUGUST 2020. The vessel, built in 1990 by IHC, Merwede, is a 4500 M^3, 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-XII – 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/112/12/2020-21, Date: 26.06.2020 and due date: 06.07.2020 ".**

or Alternatively

The tender may be submitted by e-mail (hodtech@dcil.co.in) in PDF format separately for Part-I Technical Bid, and Part-II Financial Bid" with password protection. The subject of the email to be mentioned as "Tender No: DCI/TECH/112/12/2020-21, Date: 26.06.2020 and due date: 06.07.2020 ". The password for opening of Technical Bid PDF document is to be provided by mail/sms (+91 99899 25238,hodtech@dcil.co.in) on 06.07.2020 at 1530 Hrs. The password for Price bid PDF document is to be provided by email/sms (+91 99899 25238, hodtech@dcil.co.in) on the date of opening of Price Bid (date of opening of price bid will be intimated at a later stage).

The Technical Bid sealed cover/ PDF document 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 **₹ 6,000.00 and EMD ₹ 1047000.00** (Indian Rupees Ten Lakhs forty seven thousand only) 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 Part-II financial bid sealed cover /PDF document 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-XII presently deployed at HALDIA/KOLKATA , C/o Dredging Corporation. Of India Ltd., Contact No of Regional General Manager/Project Manager, +91 9949825218 / 91 9440856064 for inspection and satisfy themselves before submitting their tender.

7. Tenders will be received at the following address:

HOD (TECHNICAL) DIV-I
DREDGING CORPORATION OF INDIA LTD.,
DREDGE HOUSE, H.B Colony Main road
VISAKHAPATNAM- 530 013
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(sealed cover/email) will be received till **1500** hours **06.07.2020** 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 (sealed cover/email) 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,

(YSR Murthy) 26/6/20
HOD (Tech) DIV-1

Encl: As above.

DREDGING CORPORATION OF INDIA LIMITED

'DREDGE HOUSE', HB COLONY MAIN ROAD, VISAKHAPATNAM – 530 013

TENDER NO. DCI/TECH/112/12/2020-21, DT: 26/06/2020
DUE DATE: 06/07/2020

DRY DOCK AND AFLOAT REPAIRS OF DCI DREDGE-XII

Signature of Tenderer & Seal

DREDGING CORPORATION OF INDIA LIMITED
VISAKHAPATNAM

INDEX

Signature of Tenderer & Seal

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 to 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 for all the yards participating in the tender will be considered as 1.0.

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: (j)**) will be considered for arriving at the lowest Tenderer (L-1) as per details below:

Sl.No	Item	
(a)	Basic Repair Cost	XXX.XX
(b)	Standing cost of the vessel per day	6.0 Lakhs
(c)	DCI estimated days	45 days
(d)	No. of days quoted by the yard	XX days
(e)	Item (d) X Performance factor (PF)	XX days
(f)	Item (e) X standing cost	XXX.XX
(g)	Passage time = to and fro from the repair yard (No. of days)	XX days
(h)	Voyage cost = Item (g) x (Standing Cost per day + fuel cost per day)	XXX.XX

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(i)	Cost for additional days = (Item (d) – Item (c)) x Standing Cost per day x Performance factor	XXX.XX
(j)	Total Evaluated Cost: (a + f + h + i)	XXX.XX

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

I. Average speed of the tow vessel during the tow period is considered as 04 knots/hour. DCI Dredge XII will be towed as manned tow by TUG, the fuel consumption for Dredge XII is considered as 1.5 KL of HF HSD per day during voyage period.

II. The dredger is presently in KPD-Kolkata and after completion of repairs the dredger will be deployed at HALDIA. (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.

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 guarantee certificate from OEM wherever required. Underwater painting scheme certification with warranty is to be provided. 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 of claims by DCI.

d) DCI 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 thinness 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 cutoff.

17. REMOVAL OF DEBRIS:

Yard shall arrange removal of debris and dirt form 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 firm/yard at their risk & cost. 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:

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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: ……. 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 are to be conducted 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 bare minimum fuel/lubes, mud and with stern tube leakages. 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. In view of the prevailing CoVID pandemic, Yard is advised to follow the guidelines and protocols issued by Statutory Authorities from time to time while executing dry dock and afloat repairs of DCI Dredge-XII.

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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. 1047000.00 (Indian Rupees Ten Lakhs Forty seven 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.

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

Signature of Tenderer & Seal

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 Limited Company under the consortium of four Indian Major Ports(VPT, JNPT,DDPT & PPT) , 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 without 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 of completion of 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 the 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 60 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: 2015 (Quality Management system), ISO 14001: 2015 (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.

19. Integrity Pact (IP): Shall cover this tender throughout its various phases, and IP would be deemed as a part of the contract through an appropriate provision. The bidders should sign and submit an "Integrity Pact" as enclosed in **Annexure-IV** along with the Technical bid in a **separate envelope** superscripted "**Integrity Pact**". Bids not accompanied by duly signed "Integrity Pact" shall be liable for rejection. IP would be implemented through the Independent External Monitor (IEM) for this tender. The successful tenderer will execute the Pact with Dredging Corporation of India Limited after award of Work.

20. **TOW REQUIRMENTS**:- DCI Dredge XII is laid up at alongside berth at KPD-KOLAKATA PORT TRUST- Kolkata India due to failure of both the stern tube seals. Vessel has to be towed to the place of dry dock with a suitable capacity TUG arranged by yard. Yard has to decide and make necessary arrangements to tow Dredge-XII in the foul weather condition. The complete tow operation from KOPT-Kolkata India to the destination port is to be carried out on ""Turnkey basis"" complying with all the requisites viz. Port in ward outward clearances, pilotage charges, Insurances, labour, boat service, customs, class inspection, all local and govt. permissions, required towing gear to connect to vessel etc. The tow shall be manned tow. The towing cost and time from KOPT Kolkata India to place of dry dock should be quoted in Group-"A" of the dry dock package separately.

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SCHEDULE – III

MAIN PARTICULARS OF DCI DREDGE – XII

1.	NAME OF THE VESSEL	:	DCI DREDGE – XII
2.	IMO NO	:	8818037
3.	IR NO.	:	11683
4.	OFFICIAL NO	:	2406
5.	CALL SIGN	:	VTTM
6.	YEAR OF BUILD	:	1990
7.	PORT OF REGISTRY	:	VISAKHAPATNAM
8.	CLASSIFICATION SOCIETY	:	INDIAN REGISTER OF SHIPPING
9.	BUILDER	:	IHC HOLLAND
10.	YARD NO.	:	CO 1188
11.	LENGTH OVERALL	:	114 MTRS
12.	L.B.P.	:	104.37 MTRS
13.	BREADTH MOULDED	:	21 MTRS
14.	DEPTH	:	7.55 MTRS
15.	DRAFT	:	5.5 MTRS
16.	GROSS TONNAGE	:	6854
17.	NET TONNAGE	:	2056
18.	MAIN ENGINES	:	2 x 6L 40/45 MAN B & W with CPP

Signature of Tenderer & Seal

Annexure to Schedule –IV

A) Estimated days for completion of DD repairs of DCI Dredge-XII= days (DD ------ days + Afloat ----- days)

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

Sl. No	Description	in Rs.
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	

Signature of Tenderer & Seal

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-XII.

Sl. No.	Clause / Sl.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:

Signature of Tenderer & Seal

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. Invoices related to particular job should be raised in consolidation and no supplementary invoices will be entertained.

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.

Signature of Tenderer & Seal

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-XII

Sl No.	Action	(Yes / No)
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/pdf documents by the authorized signatory. Mention name & designation of the signatory on the tender.	
4	Make 2 sets of tender documents i.e. (for email tenders pass word protected PDF document) Part-I - Technical Bid/PDF document and Part-II - Financial Bid/PDF Document (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 hard copy/ email tenders of the Technical Bid and Financial Bid in different envelopes/PDF documents and superscribe on the envelope/email subject to be as TECHNICAL BID and PRICE BID as the case may be and seal both the envelopes/PDF document (pass word protected). Put both the above envelopes in another envelope, seal the same superscribe on the envelope "Tender No: DCI/TECH/112/12/2020-21, Date: 26.06.2020 and due date:06.07.2020".	
13	Please ensure the tender reaches the addressee before the closing time of the tender.	
	PLEASE AVOID	
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	

Signature of Tenderer & Seal

UNDERTAKING

Tender No. DCI/TECH/112/12/2020-21 dated 26.06.2020
Dry-Dock repairs of DCI Dredge-XII

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**.

ANNEXURE-I

(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 authorized 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:

Signature of Tenderer & Seal

.....

Bank stamp / seal:

.....

ANNEXURE-II

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-imbursement.

Signature of Tenderer & Seal

Annexure-III

FORMAT of Work Done Certificate (WDC)

DCI work scope :

Sl. No	Description	Qty	Unit
1	Work scope as per NIT (Original): GROUP-B – Sl. No. 1 (a)(ii) Hard scrapping marine growth (under water area) up to light load line. Including sea chests, bow tunnels,kort nozzles and rudders	1000	Sq.M
2	Work scope as per NIT (Original): GROUP-C – Sl. No. 2(a) Shell plate above water level	25	Ton
3	Work scope as per NIT (Original): GROUP-F – Sl. No. 2 (i) E/R Bilge pump over board NR Globe valve - 150 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	Package Ref	Description	Qty	Unit	Remarks
1	GR- B Sl. No. 1 (a)	Hard scrapping marine growth (under water area) upto light load line *(Describe actual work done completely)* 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 – Sl. No. 1	Shell plate above water level: *(Describe actual work done completely)* Location / Frame No. 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 – Sl. No. 1 A (b)	GROUP-F Bilge pump NR Globe valve - 150 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. *(Describe actual work done completely)* Additional works against ADL No. (If any): ------ Ship supplied Spares/Stores used : ------- Yard supplied Spares/Stores used (Cost Extra): -------	01	No	Completed

Signature of Tenderer & Seal

Annexure-IV

Dredging Corporation of India Limited (DCIL) hereinafter referred to as "The Principal".

And

_____ hereinafter referred t o a s "The Bidder/Contractor"

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for "Drydock & afloat repairs of DCI DREDGE-XII The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and execution of the contract for compliance with the principles mentioned above.

Section 1-Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
b. The Principal will during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and wil not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
c. The Principal will exclude from the process all known prejudiced persons.

2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or it there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section2-Commitments of the Bidder(s)/Contractor(s)

1. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

a. The Bidder(s)/ contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or during the execution of the contract.
b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non- submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
c. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractors will not use improperly, for purposes of competition or personal gain, or passion to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
d. The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the bidder(s)/ contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the

Signature of Tenderer & Seal

Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only.

e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the" Guidelines on Banning of business dealings". Copy of the" Guidelines on Banning of business dealings "is annexed and marked as Annex-"B".

Section4: Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

2. If the Principal has terminated the contract according to Section3, or if the Principal is entitled to terminate the contract according to Section3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Gurantee.

Section5: Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.

2. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure mentioned in" Guidelines on Banning of business dealings".

Section 6: Equal treatment to fall Bidders/Contractors/Subcontractors.

1. The Bidder(s)/ Contractor(s) undertake(s) to demand from all subcontractors a commitment inconformity with this Integrity Pact, and to submit it to the Principal before contract signing.

2. The Principal will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section7: Criminal charges against violation Bidder(s)/ Contractor(s)/ Subcontractor(s).

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Sub contractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8: Independent External Monitor/ Monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman, DCIL.

3. The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Subcontractor(s) with confidentiality.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project, provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

6. The Monitor will submit a written report to the Chairman, DCIL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit Proposals for correcting problematic situations.

7. Monitor shall be entitle to compensation on the same terms as being extended to/ provided to Independent Directors on the DCIL Board.

8. If the Monitor has reported to the Chairman DCIL, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Chairman DCIL has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

9. The word 'Monitor' would include both singular and plural.

Section 9- Pact Duration

This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders & months----the contract has been awarded. If any claim is made /lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by Chairman of DCIL.

Section 10-Other provisions

- This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
- Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- Should one or several provisions of this agreement turnout to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)
(Office Seal)

(For & on behalf of Bidder/Contractor)
(Office Seal)

Place ----------

Signature of Tenderer & Seal

Date ----------

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	Tanks are to be ventilated by providing adequate number of blowers before man entry. No separate cost will be payable for this account.
10	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.
11	Painting - Colour of all the coats should be contrasting to enable differentiation between one coat and another.
12	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
13	Painting - Only Tin free antifouling SPC is acceptable.
14	Painting - Paint certificate to be issued by OEM and valid for 36 months.
15	Yard shall rig up staging initially to inaccessible areas for taking UTG, blasting etc. so that steel renewals can be undertaken independently
16	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.
17	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.
18	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.
19	All electrodes used and welding procedure must be approved by IRS/LRS.
20	All welding equipment including cables & holders must be in a fit state for use.
21	Weldings to be tested by DP/MPI/X-RAY as required by the Surveyors.
22	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.
23	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.
24	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.
25	Proper precautions are to be taken by the yard while renewing steel plates below main engines, Aux. Engines, gear boxes and Major equipments etc to avoid any misalignments, sagging etc.

Signature of Tenderer & Seal

26	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.
27	**Yard to provide a detailed action plan along with Bar Chart** and to quote steel grade, total steel quantity and renewals/ repairs to all locations with shell expansion drawings.
28	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.
29	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.
30	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.
31	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.
32	Renewal of pipeline less than one meter will be paid as one meter and above one meter will be paid as per actuals.
33	After repairs, all the above items are to be tried out for satisfactory operation.
34	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.
35	After repairs, all necessary items are to be tried out and shown to the IRS surveyor as required.
36	Rate shall include sea trials of Kort Nozzle, Rudders, Bow thrusters, Propellers.
37	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.
38	Over board valves stub piece & filter housing to be UT gauged & readings are to be submitted to ship staff.
39	After completion of all repairs satisfactory trials to shown to shipstaff.
40	All above items shall be quoted considering assembling back with new / dismantled / reconditioned parts, fitting in position, clamping and satisfactory trials.
41	The actual number of Bushes & Pins will be determined after dismantling.
42	After repairs, all the above items are to be tried out for satisfactory operation.
43	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 %.
44	Necessary assistance to be provided by the yard timely to the OEM as required.
45	After repairs, all the above items are to be tried out for satisfactory operation.
46	Rate shall include sea trials of main engines, Aux. Engines, Dredge pimps, Jet Pumps and all other equipments & Systems which are overhauled.
47	Rate should be inclusive of all consumables & cleaning materials, etc. But excluding Freon gases/ refrigerant, nitrogen.
48	Crane, fork-lift charges towards handling from vessel to workshop and back are applicable where weight of single item is more than 1000 Kgs.
49	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.

50	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.,
51	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.

Signature of Tenderer & Seal

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	29	Day		
3	Wharfage	15	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	29	DAY		
7	i) Continuous Shore power supply for total period – AC 50Hz., 3 phase 415V; Est. for 3,000 KWH , Cost including Connection & Disconnection	180000	KWH		
8	Cooling Water supply to refrigeration/ AC Machinery (per day per line) 2 ½ Braided hose – 2 lines , Cost including Connection & Disconnection	30	Day		
9	Sea water supply to ballast tanks of dredger, Cost Connection & Disconnection	500	TON		
10	Fire Patrol (Rate per head = 8 Hours per Shift.) Est. for 3 men per Shift x 2 shifts a day	270	Man Days		
11	Fire line to be kept charged (3 bar) all the time when the vessel is in dry-dock.(2 lines) , Cost including Connection & disconnection;	30	Days		
12	a. Fresh water supply from shore line – Est.for 20 tons per day, Cost including Connections and disconnections	1200	TON		
13	Galley refuge removal and disposal (basing on actual no of days)	45	DAY		
14	Gas free inspection by Shipyard Personnel	25	Tanks		
	Gas free inspection by Govt. Authorised Inspection, Permits for	3	Visit		
15	Crane charges for handling Ship's provision/stores.				
	i) up to 10 tones capacity	40	HOUR		
	ii) above 10 tons	40	HOUR		
16	Fitting wooden plugs with carry away pipe on scupper pipes	30	NO.S		
17	Providing Ship to shore telephone (land line) for local calls; Est. for 1 phone (if required), Cost including Connections and disconnections	45	DAY		
18	Compressed air supply from shore main:				
	i) Compressed air supply per hose per day, Cost including Connection & disconnection.	30	Shift		
19	Carry away pipes to be provided on all sea discharges to prevent flow on shipside.	10	Nos		
20	a) Sewage Disposal Sanitary carry away pipes from vessel's toilets, bathrooms are to be fitted for entire period of docking.	30	Days		
	OR				

	b) Collection of sewage waste into shore tank and disposal on load basis (3cu.m per load).	30	LOAD		
	TOTAL FOR GROUP A				

GROUP-B					
SURFACE PREPARATION & PAINTING					
S. NO	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**SURFACE PREPARATION CLEANING AND PAINTING OF HULL.**				
	Sigma/ International/ Chukogu/ Hempel/ Jotun Marine paints shall be supplied and used by the yard.				
	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. 36 months guarantee certificate from OEM must be arranged for obtaining AFS from Class				
	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 evoluation of Tenders for arriving L-1 bidder.)				
	Only Tin free antifouling SPC is acceptable				
	a) Surface preparation of Hull				
	i) High pressure (150 bar) F/water washing of entire hull. (Assume 100% under water and 800 Sq.m of above water)	3,300	Sq. M		
	ii) Hard scrapping marine growth (under water area) upto light load line including sea chests, bow tunnels, kort nozzles and rudders.	1,000	Sq. M		
	iii) Copper slag hard sweeping to SA 1.0 (Assue 500Sq.m of above water and 1500 Sq.m of below water)	2,000	Sq. M		
	iv) Copper slag blasting upto bare metal SA 2.5 of vertical sides in mid ship area, fwd panelling area, rudder area between ship side rails and other isolated locations, complete paint opened up/ break down including bow tunnels, sea chests, kort nozzles, rudders and old keel block areas (Considered 75% of balance area)	1,500	Sq.M		
	v) F/Water Washing ordinary (after first primer) of complete hull	3,700	Sq. M		
	b) Painting of Above water area (Hull)				
	i) Touching blasted/sweeped areas with Epoxy Primer 50Mic. DFT	500	Sq. M		
	ii) Epoxy HB Paint 150 Mic. DFT	700	Sq. M		
	iii)Apply finish coat of Topside Black (Re-coatable Polyurethane) 75 Mic. DFT	1,200	Sq. M		
	c) Painting of under water area (Including bow tunnels, sea chests, kort nozzles and rudders):				
	i) Epoxy Primer at 50 Mic. DFT (Blasted areas)	2,000	Sq. M		
	ii) Apply Tar Free Epoxy at 125 Mic. Dft (SA 2.5 blasted area)	1,500	Sq. M		
	iii) Tar Free Tie coat 125 Mic. Dft .on total area	2,500	Sq. M		
	iv) Two coats of SPC. A/F (Tin free) 125 Mic. Dft. (2500 x 2)	5,000	Sq. M		
	d) Ship's name painting				
	Painting of ship's name in Hindi and English at P & S bow and stern and port of registry including IMO Number at stern shipside with 2 coats of white paint.	1	LS		
	e) Hull markings				

	i) Painting plimsol marks at midship P & S,draft marks up to full load line at FWD, mid ship and aft of P & S sides & bow-thruster markings with 2 coats of white paint.	1	LS		
	ii) Line cutting boot top & top sides	230	RMT		
2	**Painting of all External Decks.**				
	a) Removal of all oil, grease, dirt, debris etc by chemical cleaning (chemical- yard supply).	1,000	Sq. M		
	b) High Pressure FW Washing (100 bar)	1,500	Sq. M		
	c) Copper Slag Blasting all areas to SA 1.0	1,000	Sq. M		
	d) Copper Slag Blasting SA 2.5 (if, Required)	500	Sq. M		
	e) Hydro blasting the decks equivalent to SA 2.5 (if Copper Slag blasting is not possible)	500	Sq. M		
	f) F/W washing to be done after applying primer.	1,500	Sq. M		
	g) Epoxy Primer 50 mic. DFT	1,500	Sq. M		
	h) Two coats of surface tolerant epoxy green 125 mic. DFT each.	3,000	Sq. M		
3	**Painting of Hopper coaming, all deck fittings, travelling DECK Crane, hopper pipelines etc.**				
	a) Removal of Oil ~~and~~ grease, dirt, etc by Chemical cleaning/chemical Washing (chemical - yard supply)	500	Sq. M		
	b) High Pressure (100 bar) F/W Washing	1,200	Sq. M		
	c) Copper Slag blasting to SA 2.5, if required	500	Sq. M		
	d) Mechanical Preparation				
	i) Chipping (Assume 15%)	150	Sq. M		
	ii) Scrapping (Assume 10%)	100	Sq. M		
	iii) Power brushing (Assume 10%)	100	Sq. M		
	iv) LP Washing (100%) after primer	1,000	Sq. M		
	e) One coat of epoxy primer 50 mic. Dft.	650	Sq. M		
	f) Apply one coat of Chloro rubber primer/ Vinyl anti corrosive primer- 75 Mic. DFT	1200	Sq. M		
	g) One coat of acrylic finish 40 Mic. Dft of Buff Colour.	1,200	Sq. M		
4	**Painting of super structure**				
	a) High pressure (100 bar) F/W washing	1,600	Sq. M		
	b) Chipping & wire brushing	400	Sq. M		
	c) Power brushing, if required	400	Sq. M		
	d) Apply epoxy primer 50 Mic. Dft	800	Sq. M		
	e) Apply Chloro Rubber Primer / Vinyl anti corrosive primer- 75 Mic. DFT. (Full coat)	1,600	Sq. M		
	f) Apply acrylic white finish two coats on superstructure (1600Sq.M x 2 coats)	3,200	Sq. M		
	g) Monkey island awning to be painted with Fluorescent orange paint	20	Sq.M		
	g) One coat of acrylic finish 40 Mic. Dft of Buff Colour. (for masts)	25	Sq. M		
	h) Two coats of surface tolerant epoxy green 125 mic. DFT each. (for walk-ways)	20	Sq. M		
5	**Painting of Funnel system**				
	a) Funnels:				
	i) FW washing	200	Sq. M		
	ii) chipping, wire brushing & cleaning / mopping	200	Sq. M		
	iii) Painting with HR black paint.	200	Sq. M		
	b) exhaust pipes				
	i) scrapping & mechanical chipping	10	Sq. M		
	ii) Painting with Primer and HR aluminium paint	10	Sq. M		
	NOTE: Yard has to plug all scuppers, Cover anodes, protection coovers for Transducers of echo sounder, DLM transducers, underwater transducers etc., with wooden/ grease in consultation with shipstaff while undertaking steel renewals / blasting and painting, etc.				
6	**SEA CHEST - FWD, PUMP ROOM (P&S), BOW THRUST TUNNELS.**				

	a) Sea Chest: 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, remove marine-growth, chipped, grit-blasted as required, cleaned (As per Paint rep requirement), painted (5 coats - U/W paint Scheme). All gratings must removed, scraped, painted properly and fitted back.				
	i) Hardscrapping, remove marine growth	300	Sq.M		
	ii) Copper slag blasting up to bare metal (SA 2.5) for above	300	Sq.M		
	iii) Painting to be done as per above scheme (5 Coats)	300	Sq.M		
	b) Filter Casing: 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).				
	i) Hardscrapping, remove marine growth	300	Sq.M		
	ii) Chipping	300	Sq.M		
	iii) Painting as per above scheme	300	Sq.M		
	iv) Removal & refitment of Filters	4	nos.		
	c) Sea water filter: P & S main sea water PP filters to be cleaned, Chipped, painted & fitted back.				
	i) Chipping & cleaning	4	nos.		
	ii) Painting	4	nos.		
	d) Sea suction gratings to be removed, cleaned, chipped and painted. Corroded & broken J-hooks (yard-supply) to renew. Bolts to be cemented / locked with SS-wire.				
	i) Port & Stbd main sea chest gratings 750 mm x 640 mm	12	nos.		
	ii) P&S dilution valve grating Size : 670 mm x 140 mm	8	nos.		
	iv) Fwd & Aft bow thruster tunnel gratings Size : 1200 mm x 1185 mm	4	nos.		
	e) Renewal of Grating, if required	100	Kgs		
7	**ANCHOR & ANCHOR CABLE:** Anchor Type: Stockless Pool Anchor Chain: CC3- Dia 48mm - 10 shackles each				
	(a) Anchor cable & anchor to be disconnected from ship, ranged on dock floor, water washed with F.W. high pressure, grit blasted to bare metal, cleaned and applied with a coat of primer and two coats of Bitumastic paint, marking the kenter shackles and joinings with HB red & white. Restore the cable after marking with seizing wire and paint. Cables to be re-connected after all repairs. IRS Recommendations if any to be attended.	2	Sets		
	b) Anchor chains to be calibrated and report to be submitted in triplicate duly complying the Class notation of Sea Going vessels.	2	Sets		
	(c) Removing the anchor D' shackle and carrying out necessary repairs on pin. Same to be fitted back to the anchor (excluding repairs)	2	Nos.		
	d) Changing end to end of anchor cable	2	Nos.		
	e) Renewal of 'D' Shackle pin including material	2	Nos.		
	f) Renewal of crown pin & swivel (if reqd on inspection) including material	75	Kg		
	g) Repairs to worn-out portions of anchor flukes by building up with MS electrodes	50	Kgs		
	h) Building up of anchor chain guide track as well as lips of hause pipe inner end/outer ends including windlass gypsies by low hydrogen electrodes.	100	kgs		

8	**CHAIN LOCKERS (3 x 40 Cu.M each; FWD-2 no., Aft-1 no.)**				
	a) Removing and disposing mud and muck from the chain locker to shore dust bin & disposal	5	Ton.		
	b) Scrapping, chipping, wire brushing, cleaning, throwing/disposing to the shore dustbin and painting.				
	i) Scrapping	150	Sq M		
	ii) chipping & power brushing	150	Sq M		
	iii) FW washing & mopping	150	Sq M		
	iv) one coat of Epoxy primer 50Mic DFT	150	Sq M		
	v) one coat of HB Black 50 Mic. DFT.	150	Sq M		
	c) Anchor flushing Globe valves Dia 50 mm to be removed, inspected, cleaned, valve seat & Lid tobe skimmed & lapped, complete valve to overhauled, pressure tested and fitted back in position with new bolts & nuts & joints. No-leak trials to shown to ship staff / IRS.	3	No.		
	d) Chain Locker hand pumps forward and aft to be overhauled, defects noted if any, to be rectified.	3	Nos.		
	e) Chocked flushing line (stbd) to be cleared	1	LS		
9	**P/R, E/R, FWD M/c, STEERING COMP. BILGES, TANK TOPS AND PIPELINES (BELOW FLOOR PLATES):**				
	a) Removal of water, Oil, mud, muck and remove muck & sludge and to dispose off from bilges to shore dustbin. (Pump room bilge filled with mud)				
	i) Pumping out oily water / water.	20	Ton		
	ii) Bailing out waste oil/Sludge	1	Ton		
	iii) Removal Mud & muck etc.	20	Ton.		
	b) Surface preparation and painting for bilges: (E/R, S/R-500, P/R-315, Fwd M/c-425 Sq.M)				
	i) Scrapping	500	Sq. M		
	ii) mechanical Chipping	600	Sq. M		
	iii) Power Brushing	140	Sq. M		
	iv) Cleaning of bilges with chemical (Yard supply)	1,240	Sq. M		
	v) Cleaning/mopping with cotton rags	1,240	Sq. M		
	vi) Applying one coat of epoxy primer at 50 Mic DFT	1,240	Sq. M		
	vii) Applying one coat of HB Grey 100 Mic DFT	1,240	Sq. M		
	c) Applying one coat of paint to pipelines (below floor plate & near deck heads). (Colour-scheme viz., blue / green / red / black / brown / orange,etc., to be done as per international colour scheme/as per shipstaff instructions)	500	Sq.M		
	d) Removal, Cleaning, painting (Green) & refitment of chequered plates including drilling new holes if required, threads-tapping/re-tapping as required, fixing with new CSK screws/bolts&nuts. (screws, bolts & nuts, etc - at yard Cost & supply)	200	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				

	e) 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. (E/R-2000Sq.M, P/R-600 Sq.M, Fwd M/c & BT Room-2400 Sq.M, Deck Head & Steering Compartment - 200 Sq.M)				
	i) Scrapping	600	Sq.M		
	ii) Chemical Cleaning	600	Sq.M		
	iii) Power Brushing	1,300	Sq.M		
	iv) F.W. Wash	5,200	Sq.M		
	v) Touch-up primer	1,300	Sq.M		
	vi) Finish Coat	5,200	Sq.M		
10	**F.W./ F.O/ L.O/ VOID SPACES/ BALLAST TANKS AND OTHER TANKS.**				
	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.	56	Nos.		
	b) 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 to be fitted back, vaccum tested and cemented.				
	i) Removal of Dirty Oil/oily water / water	30	Ton		
	ii) Mud and muck etc.	15	Ton		
	iii) Removal of sludge	5	Ton		
	iv) Bearling Cement box and clearing debris	1	Cu.M		
	Note: ***Tank No.2 (DB Dry Tank) and Tank No.4 flooded with water. Tank no.4, 14, 23, 26, 37 found holed and fitted with doubler. Tank No.37 provided with a cement box.***				
	c) General cleaning and preparation of tanks for surveyor's inspection	36	Tanks		
	d) Pressure testing of the tanks and showing to Surveyors for inspection.(Minimum charge / tank may indicate)	28	Tanks		
	e) Surface preparation of Tanks as below:				
	i) F/W Tank (04 nos.) 8, 9, 10 &11.				
	HP FW Cleaning & mopping full area	2000	Sq.M		
	Spot chipping the rusted areas	200	Sq.M		
	Apply one coat of touch-up paint on chipped area	200	Sq.M		
	Apply one full coat of pure epoxy solvent free (non-toxic) paint 75 Mic DFT.	2000	Sq.M		
	ii) Ballast tanks 1,4,32,33				
	Fresh Water mopping	3725	Sq.M		
	spot chipping rusted areas	500	Sq.M		
	Touch-up Epoxy primer with 50mic DFT	500	Sq.M		
	Painting with 1 coat of HB Apoxy Red 75mic DFT	3725	Sq.M		
	iii) Dry Tanks 2, 3, 7, 23, 24, 25, 43, 44				
	Cleaning with Cotton rags	2,500	Sq.M		
	Spot chipping rusted area	500	Sq.M		
	Touch-up primer at chipped area	500	Sq.M		
	One Full coat of Apoxy Grey	2,500	Sq.M		
	iv) FO Tanks, D.O. & Sludge Tanks				
	Chemical cleaning	1,500	Sq.M		
	Cleaning with cotton rags	1,500	Sq.M		
	f) Surface preparation of Buoyancy spaces (including side bulkheads, floor, deck heads)				
	i) Scrapping	500	SQ.M		
	ii) spot chipping & cleaning	300	SQ.M		
	iii) FW mopping	2000	SQ.M		

	iv) Touch up with epoxy primer (50mic DFT)	300	SQ.M		
	v) Applying one full coat of paint 75mic DFT (deck green colour for floor, buff colour for sides) in buoyancy space.	2000	SQ.M		
	g) Hydraulic oil filled in the certer keelson to be baled out.	10	Ton		
11	**DECANTATION TANK, SEA SUCTION FILTER HOUSING -FWD (P&S), & CENTRE KEELSON.**				
	a) Bailing out water and removing mud, muck sand, water etc. to shore dustbin and making centre keelson / decantation / filter tanks ready for inspection.	10	Ton.		
	b) Scrap, chipping, wire / power brushing, cleaning, removing residue to shore and preparing the tanks for surveyor/ship staff inspection.	700	Sq.M		
	c) Painting of Decantation tanks/Filter housing and centre keelson				
	i) One coat of Epoxy primer 50 Mic DFTin both Decantation tanks	200	Sq. M		
	ii) One coat of Epoxy primer 50 Mic DFT in Centre Keelson.	450	Sq. M		
	iii) One coat of Epoxy primer 50 Mic DFT in filter housing	50	Sq. M		
	iv) Two coats of Epoxy HB Red 75 Mic DFT in both Decantation tanks (200Sq.M x 2)	400	Sq. M		
	v) One coat of Yellow buff 75 Mic DFT in Centre Keelson.	450	Sq. M		
	vi) Two coats of Epoxy Red HB 75 Mic DFT in filter housing	50	Sq. M		
12	**HOPPER SPACE:**				
	a) Removing mud, muck & other debris/stones, etc from inside hopper, hopper bulkheads bottom door & its surrounding areas, b/d opening, scrapping mud/muck, dumping same to shore dustbin and hosing down for inspection.	50	Ton.		
	b) HP wash entire Hopper area including the girders and beams	3,550	Sq.M		
	c) Hopper inside grit blasting SA2.5 (internals, beams, long and transverse hopper bulk heads etc)	3,550	Sq.M		
	d) Apply one Coat of Primer	3,550	Sq.M		
	e) LP Wash after primer	3,550	Sq.M		
	f) Apply one coat of wear resistant Apoxy paint Black	3,550	Sq.M		
13	**MAIN SW INTER CONNECTING PIPE BEWEEN E/R & P/R BUFFER TANK and CENTRE KEELSON.**				
	a) MSW interconnection pipes(dia 600 mm) Dismantling, choke clearing including mud, muck & barnacles & refitting (job includes removal, cleaning & refitment of existing/new VJ couplings)	40	MTRS		
	b) Overhauling of VJ coupling 600 dia.	2	No		
	c) spot chipping, Mechanical cleaning & Painting (one coat of EPOXY primer 50mic on rusted areas + 1 cost of buff paint 75 mic DFT of MSW interconnection pipes (OD 600 mm)	100	Sq.M		
14	Removal & renewal of **ANODES** (Ship's supply) including greasing and de-greasing.	146	No		
15	**PAINTING OF HOPPER COAMING AND DECK FITTINGS (DECK CRANE / GANTRIES / HYD CYLINDERS AND MASTS)**				

	a) Removing oil/grease by chemical cleaning (Chemical - supply & Cost by Yard)	600	Sq. M		
	b) High pressure FW washing	1,200	Sq. M		
	c) Copper slag blasting SA 2.5	1,200	Sq. M		
	d) Apply one full coat of Epoxy primer 50 Mic DFT	1,200	Sq. M		
	e) Apply One coat of acrylic finish (color as per choice of ship staff) 75 Mic DFT	1,200	Sq. M		
16	**PAINTING OF DREDGE DISCHARGE PIPES ON DECK AND HOPPER (Dia 700mm)**				
	a) Dredge pipes and the pipe brackets to be spot chipped and de rusted	200	Sq.M		
	b) power brushing the rusted area	200	Sq.M		
	c) apply full coat of apoxy primer on discharge pipes 75mic DFT	500	Sq.M		
	d) apply full coat of Apoxy Bitumin Black paint	500	Sq.M		
17	**SKEG** to be pressure tested and identify the leaks. Leaks to be arrested by steel renewal as per Gr-C.	1	LS		
	NOTE: Rates quoted for all above jobs must be inclusive of staging wherever required and any other preparatory works including greasing / de-greasing of anodes. The above rates should be inclusive of removal of spares, old items, lube oil drums, other machinery items etc from place and placing back onboard (including loading unloading and transportation to & fro) as per shipstaff instructions to fecilate the repairs, surface preparation & painting works etc. No additional charges will be paid extra.				
	TOTAL FOR GROUP –B				

GROUP-C					
STEEL & PIPE RENEWALS					
S.NO	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	Ultrasonic tthickness gauging of ship's hull,decks, tanks, other steel structures, sea chests, filter casing, valve stub pipes, tank top platings, main sea water interconnection pipes in the central keelson, Dredging pipes in the pumproom, on the deck, suction pipes, overflowduct including passing through central keelson,hopper bulk heads, jet pipes etc., Submitting drawing in triplicate, indicating the areas to be renewed as per IRS Rules and renewals accordingly.	15000	Points		
2	Steel Plate (8 mm to 25 mm thickness) including associated beams, angles, stiffeners, etc., which are thinned down / wasted as per UTG report and marked by the ship staff / surveyors are to be renewed upto the satisfaction of ship staff / IRS . The rate must be inclusive of staging and with one coat of primer after fitment. All plates must confirm to Llyods Grade "A" Steel or AH36. **(Consider specific weight of steel @ 7.85 gms/Cu. Cm.)**				
	a) Shell Plate above water level	25	Tons		
	b) Shell Plate below water level	25	Tons		
	c) Hopper Longitudinal & Transverse bulk heads	20	Tons		
	d) Hopper Beams & deep floors	10	Tons		
	e) Main deck, hopper deck & other weather decks	15	Tons		
	f) Tank internals, tank tops, funnels, confined places and center Keelson	20	Tons		
	Note: ***Tank no.4, 14, 23, 26, 37 found holed and fitted with doubler. Tank No.37 provided with a cement box.***				
	g) Hopper Coaming and Corners.	15	Tons		
	h) Welding new doubler plate	2	TON		
	i) Off fair and refit.	1	TON		
	j) Fair in place.	1	TON		
	k) For chequered steel plates	1	TON		
	l) Single curvature	0.5	TON		
	m) Double curvature	0.5	TON		
	n) Minimum 10kgs / Location *	2	TON		
	o) Steel renewals of various thickness, pertaining to weather tight doors, Air vent hoods, port holes, door coamings, various deck openings, stiffners, ladders, monkey ladders, ladder supporting side plates etc	2	TON		
3	**Accommodation & super structure**				
	Renewal of corrugated plating of Accommodation and super structure bulkheads and plating of deck including monkey island with chequered plates on Mast head. (Note: If Chequered plate, rates will be admitted as per Sl. No 2 K)	6	TON		
4	**Building up by MS welding electrode**s on the pitted spots of plates / wasted welding areas and levelling by grinding				
	i) For welding of Spot Size - 25 X 25 mm	20	Kg		
	ii) For welding of Spot Size - 50 X 50 mm	20	Kg		
5	**Renewal of railing/guard rail/ stanchians.**				
	i) GI pipes -SCH 40				
	26 to 50 mm dia	100	RMT		
	ii) Ms rod Size Dia 18 to 25 mm	50	MTR		
	iii) Renewal of Stanchians- MMD Standard	25	Nos.		

6	Repair welding joint by gouging, grinding and welding with MS electrodes – minimum 3 runs.	100	MTR		
7	Metal Built of Casings, slides, rails etc -up with MS Electrodes, Rate on weight basis	100	Kg		
8	**HYDRAULIC PIPELINES:**				
	a) The following hydraulic pipes to be dismantled from ship, transported to workshop, fabricate new pipes (including bends), pickle and pressure test (250bar), fitted with new gaskets/'O' rings, allen-bolts & nuts (inclusive of cost of pipes, gaskets, nuts & bolts, O-rings etc.,), satisfactory trials shown to ship staff (all hyd. pipes and fittings – Yard's supply)				
	i) SS Pipes - Dia 26 to 32mm.	5	MTRS.		
	ii) SS Pipes - Dia 21 to 25mm.	5	MTRS.		
	iii) SS Pipes - Dia 13 to 20mm.	5	MTRS.		
	iv) SS pipes- up to Dia 12mm	5	MTRS		
	c) Renewal of Heavy duty Pipe clamps				
	i) GI Clamp up to 25 mm dia	50	Nos		
	ii) GI Clamp 26 to 50 mm dia	150	Nos		
	ii) GI Clamp above 50 mm dia	50	Nos		
9	**RENEWAL OF F/W AND S/W PIPELINE AND SCUPPER / SANITARY LINES AND ALL SYSTEM LINES:**				
	At various places with seamless steel Sch.80 pipe. (Rate includes clamps, joints / gaskets / packings, bolts & nuts)				
	a) Sch.80 Pipe Nominal dia.(in mm)				
	i) Upto 15	20	MTR.		
	ii) 16 to 25	20	MTR.		
	iii) 26 to 50	20	MTR.		
	iv) 51 to 80	20	MTR.		
	v) 81 to 100	20	MTR.		
	vi) 101 to 150	20	MTR.		
	vii)151 to 200	10	MTR.		
	viii) 201 to 250	10	MTR.		
	ix) 251 to 300	20	MTR.		
	b) Sch.80 MS Bends				
	i) Upto 15	5	Nos		
	ii) 16 to 25	5	Nos		
	iii) 26 to 50	5	Nos		
	iv) 51 to 80	5	Nos		
	v) 81 to 100	5	Nos		
	vi) 101 to 150	5	Nos		
	vii)151 to 200	5	Nos		
	viii) 201 to 250	5	Nos		
	ix) 251 to 300	5	Nos		
	c) GI Pipes (Sch -80)				
	i) up to dia 25 mm	20	MTR.		
	ii) dia 26 to dia 50 mm	20	MTR.		
	iii) dia 51 to dia 75 mm	20	MTR.		
	iv) dia 76 to dia 100 mm	20	MTR.		
	v) dia 101 to dia 125 mm	20	MTR.		
	vi) dia 126 to dia 150 mm	20	MTR.		
	d) GI Bends (Sch -80)				
	i) up to dia 25 mm	5	Nos		
	ii) dia 26 to dia 50 mm	5	Nos		
	iii) dia 51 to dia 75 mm	5	Nos		
	iv) dia 76 to dia 100 mm	5	Nos		
	v) dia 101 to dia 125 mm	5	Nos		
	vi) dia 126 to dia 150 mm	5	Nos		
	e) MS Camps for above pipes				
	i) Upto 15	10	Nos		
	ii) 16 to 25	10	Nos		
	iii) 26 to 50	10	Nos		
	iv) 51 to 80	10	Nos		

	v) 81 to 100	10	Nos		
	vi) 101 to 150	10	Nos		
10	**SUCTION & DISCHARGE PIPES:**				
	a) Ultrasonic thickness gauging of all suction & discharge Dredge pipes	500	POINTS		
	b) Dredge pump suction and discharge pipes 700mm ID 16mm thick to be renewed by removing old pipes from place and fabricating new pipe with existing/new flange including removal and fitment of existing fittings all/adjacent pipes, new packings (yard supply), new bolts & nuts (Yard supply). Renewed Pipes Exact sizes- length, thickness and dia to be specified in WDC. (**Job to be attended only as per UTG Report**)				
	i) Straight pipes ID 700mm 16 to 20mm thick	12	TON		
	ii) Bend pipes ID 700mm, 25 to 32mm thick	5	TON		
	iii) Y-shaped branch pipes (32-40mm thick)	2	TON		
	iv) T-branch pipes (16-20mm thick)	2	TON		
	v) Straight pipes ID 500mm 16mm thick	2	TON		
	vi) Bend Pipe ID 500mm, 25mm thick	1	TON		
	vii) Reducer pipe 700mm to 500mm, 16-25mm thick	1	TON		
	viii) The existing S bends fitted at pump room aft bulkhead (hopper dilution pipe) to be removed and renewed with new Ship supplied S- bends as per drawing & ship staff instructions	2	Nos.		
	c) Fabrication of new MS flange of thickness 25 to 45 mm including bolt-holes drilling, o-ring grooving and machining.(Finished product)	1	TON		
	d) Welding of flanges (25-45mm thick) to the DCI supplied new / existing old pipe (700 Dia)	10	Flange		
	e) Removal, Turning 180 deg (if required) and refittment of pipes with new rubber gaskets/packings/ O-rings and HT 10.8 bolt & nuts on specific work order by Ship staff				
	i) Nominal dia 500 mm	10	MTR		
	ii) Nominal dia 700 mm	20	MTR		
	f) Pipe supporting brackets 16 thick (approx) with 04 nos. bolt-holes	500	KGS		
	g) Inter-connecting pipes in Centre keelson and P/R & E/R				
	i) UT gauging to be taken for inter-connecting pipe. Accordingly, the renewal of pipe to be carried out as per instruction of SS.	100	POINTS		
	ii) Renewal of Interconnecting pipes- ID Dia 600mm thick 16mm	3	TON		
11	Thinned down jet pipes are to be renewed with MS SCH pipe with existing old flanges (which are to be cut from old pipe) or new flanges, (inclusive of gakets,new bolts & nuts-all yard supply) as per UTG & SS instructions, Pipe Dia 300 MM approx.				
	a) SCH- 80 Pipe	70	MTR		
	b) Renewal of Flange (300mm)	8	Nos		
12	RATE FOR PURCHASE OF NON-FERROUS SCRAP GENERATED DURING DD REPAIRS INCLUDING STEEL RENEWAL IS PAYABLE TO DCI	LS	LS		
	TOTAL FOR GROUP-C				

GROUP-D

BOTTOM DOORS, OVER FLOW DUCT & UPPER DOORs

S.NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**BOTTOM DOOR REPAIRS**				
	a) i) Conical part of bottom doors to be lowered on the wooden blocks after removal of 3 Nos. lock pins (arrestors) and 9 Nos. of palm bolts from the main stem of each door, if required.	14	No		
	ii) UTG to be carried out on bottom door stems and cone areas for deciding renewal ofstems.	500	Points		
	b) (i) Fin guide clearance to be checked. If found more, fin guides to be renewed and guide clearances adjusted after aligning the bottom doors	14	No		
	(ii) Fin Guides renewal	840	KG		
	c) Bottom door rubber packing to be renewed after removing the tension belt. After repairs, the tension belt is to be fitted back and secured in place (If required, renewed with new one), after renewal of bottom door rubber packing including cleaning and painting of packing seating area & tension belt (Rubber packings – ship's supply).	14	No		
	d) i) All welded joints on the main stem, bottom door cone, and door fins to be checked for cracks, if any, by DP/MPI test and cracked portions to be gouged and re-welded properly.	80	MTRS		
	ii) Worn out / corroded weld joints welding with L&T 2B/CPHFD 011 / OK 83.40 or compatible electrodes.	50	mtrs		
	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 (including Anti-rotation blocks and Sacrificial plates on hull rings). Alignment to be checked and corrected as required.	2	Ton		
	f) 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 after a coat of primer. Size of openings 500 mm X 500 mm.	14	Door		
	g) Bottom doors guides at hopper deck level (inside hopper) inside cylinder housing (bottom door stool/foundation) worn out portions, if any, to build-up and machined to maintain clearence.	150	Kg		
	h) Palm bolts to be renewed @ 3 Nos. bolts per door. Bolts ships supply. If required additional locking plates to be welded. (Renewal of locking plates rates will be admitted as per steel renewal-GR-C)	14	Doors		

	i) Tension belts of bottom doors to be renewed with yard-supply materials, if necessary.	14	No.		
	j) Building up of cast steel portion of bottom doors and seat area on the hull by L&T 2B/CPHFD 011/ OK 83.40 or compatible electrodes.	150	Kg		
	k)Renew all arrester guide pipes (3 Nos. per door.)	14	doors		
	l) 14 nos. junction boxes on hopper deck (P & S) near bottom door installation are to be renewed. All connectors inside JB's of suitable ampere ratings are to be fitted. Each cable/wire are to be lugged and marked with ferrule. After completion of work, system operation to be shown to SS. brackets for fitment of proximity switch are to be made as existing one as per sample (bottom door open/close circuit)	14	doors		
2	**OVERFLOW DUCT (OFD):**				
	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) The adjustable overflow duct cylindrical shaped as well as the conical / taper portion (OD 3250mm/OD 1732mm) thinned plate & rod portion as per UTG to be renewed after removing existing duct and its hydraulic cylinder and attachments . OFD ID=1700, 4600mm long, Thk = 16mm. After renewal same is fitted back in position with all connections. Due care to be taken to ensure correct alignment of the OFD while plate renewal	1	ton		
	c)The overflow duct lip seal to be removed after opening 44 Nos. nuts & bolts and holding down flange segments.The new lip seal to be fitted and all the holding down flange segments(retaining ring to be renewed, if required.), nuts and bolts are to be fastened.(seal & retaining ring ship supply). SS Bolts & Nuts - yard supply.	1	No.		
	d) Thinned down portion as per UTG of the fixed-part (ID=1800mm) of OFD to be renewed	1	ton		
	e) Fabrication of new flange including bolt holes drilling & machining for overflow duct & hydraulic cylinder	200	kg		
	f) Welding of new/old flange with fixed OF duct	2	No.		
	g) 03 No's outer guide pipes (Approx.250mm Dia) & 03 nos. inner guide pipes to be gauged. If required same to be renewed. (*note: Rates for pipe renewals should be quoted as per SCH-80 pipeline renewal GR-rates.)*	6	Mtr		
3	**Renewal of bottom door hydraulic cylinder indicator pipes**				

	a) Renewal of pipe				
	i) SCH 40 - dia 50 mm , length = 5200 mm	14	No		
	ii) SCH 40 - dia 65 mm , length = 100 mm	14	No		
	b) Steel plate used for indicator arrows and support				
	i) Support plate - 300 X 100 X 10 mm	14	No.		
	ii) Arrow plate - 300 X 60 X 10 mm	14	No.		
	(Steel jobs to be quoted as per steel renewal rates)				
	c) Renewal of clamps - NW dia 400 " A" type clamps	14	No.		
3	**ISOLATION OF UPPER DOORS:**				
	Upper doors, connecting chains & tie rods and hydraulic cylinders to be secured in closed position (if required).	14	Sets		
	TOTAL	**Group-D**			

GROUP-E					
CPP SYSTEM, RUDDERS & BOW THRUSTERS					
Sl.NO	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**RUDDER & RUDDER STOCK: (MAKE: ROLLS ROYCE (KONGSBERG), TYPE: R 2500.K 390/3.2, Order No. 1366)**				
	a) Rudder drop and jumping clearances to be taken and recorded (Before and After Repairs).	2	No.		
	b) Drain plug to be opened and drain out water if any in the presence of ship staff. Rudder to be float coated with fish-oil (yard supply), plug to be fitted back and cemented. Presure tested and ensure no leaks.	2	No.		
	c) Rudder to be dismantled and un-shipped. After repairs to be fitted in place & securing nut tightened hydraulically(P&S). Rudder nut inspection door to be removed & re-welded on completion of work.	2	No.		
	d) Port & Stbd Rudder stock to be unshipped. Stock to be cleaned, inspected for any damages at bush and bearing area and to be calibrated. Stock Trueness to be checked. MPI test to be carried out on stock. Rudder stock conical/taper part (tiller side and rudder side) to be inspected & dealt as required. Rudder Stock tapper roller bearing to be checked and renewed if required. Bearing housing to be cleaned and inspected for any damages, same to be renewed if required. Tiller and tiller swivel bearings to be checked and renewed if required. Keyway slot of tiller arm & rudder stock to be checked.Keys to be renewed if required. Rudder stock liner to be checked and renewed. (liner, bearings and seals - all ship supply). Rudder trunk neck bushes to be calibrated and renewed, if required. After completion of all repairs, satisfactory trials to be shown to SS and IRS.	2	NO		
	e) Both Rudder trunk neck bush to be renewed with ship-supply spare (OEM procedures to be followed strictly) after machining to correct dimensions	2	nos.		
	f) Greasing passage to rudder trunk bush (P&S) to be checked & cleared as required.	2	LS		
	g) Thinned down portions of Rudder to be renewed as per UTG.	2	Tons		
	h) Built-up and machining of rudder stock worn-out portions with suitable electrodes under controlled temperature & other conditions to minimize the clearence, if required.	200	Kgs		
	i) Insitu line boring of rudder trunk/neck bush housing area to be carried out, if required.	2	Nos.		
	j) Thread dressing-up of rudder stock	2	Nos.		
	k) Fabrication of new keys for tiller, if required	100	Kgs		
	l) Renewal of rudder jumping stopper bar, if required	2	Nos.		
	m) Bedding of Rudder and Rudder stock (tiller side, rudder side) to be carried out, hydraullically inserted as per oem procedures, blue-matching to be checked for maximum contact area. Insitu grinding / polishing to be carried out on the contact surfaces (of rudder stock as well as housings of rudder & tiller) till satisfactory blue-matching & bedding is achieved to satisfaction of shipstaff and IRS	2	LS		
2	**CPP SYSTEM (MAKE : WARTSILA PROPULSIONS B.V. NETHERLANDS, TYPE: 4D775D;VL 70-CX; Wartsila order no. MP/S0068; STERN TUBE SEALS - TYPE : MK II. FWD SEAL 300MM & AFT SEAL 330 MM.)**				

	a) Propeller shaft rope guard to be removed, to renew and refitted with clearance of max 5mm.	400	Kgs		
	b)new net cutters / wire cutters (yard supply) to renew as required.	2	sets		
	c) Port and Stbd propeller blade tip clearance to be taken and recorded (Before and After repairs)	2	Nos.		
	d) Stern oil from both the Stern tube to be drained completely, cleaned and new oil (shipsupply) to be taken into the system.	2	LS		
	e) Withdrawl of tail shaft after disconnecting all moutings / fittings, taking to workshhop, dismantling completely, DP/MPI of bearing areas, cleaning and O/H tail-shaft assembly with new spares (ship supply), present to IRS & SS for survey and fit back in position (P&S) with ship-supply stern-tube seals (Fwd & Aft)	2	NO'S		
	f) Port & stbd Stern tube seals, Sealing Pot, Chrome liners- Fwd and Aft replacement with new Spares -seals and liners (Spares DCI supply).	2	SET		
	g) Port & stbd Stern tube Fwd & Aft bearing bushes to be renewed with ship supply spares (Bushes to be machined to match the interference fit)	2	SET		
	h)Port and Stbd Propeller blades are to be renewed and fitted to hub with new 'O' rings. All works to be shown to /inspected by shipstaff & IRS.Tightening the holding bolts to required torque & secured/locked by welding.	8	Nos.		
	j) Telegraph position and pitch indicator situated on bridge and ECR panel and mechanical indication system in engine room are to be matched together. CPP Electro-pneumatic pitch control system to be thoroughly checked, necessary adjustment as required to be done in docked & afloat condition, tuned and satisfactory trials to be given (Spares – ship's supply).	2	Nos.		
	k) Muff coupling for tail-shaft to be overhauled with new o-rings / seals, pressure test and fit back	2	Nos.		
3	**OIL DISTRIBUTION (OD) BOX FOR CPP**				
	CPP OD box to be dismantled, inspected, thoroughly cleaned, overhauled (by OEM) and offered for survey. If any defects found during inspection, same to be rectified. Potentiometer to be adjusted/tuned properly for correct pitch readings (local, ECR, bridge). Spares-ship supply. After survey/inspection/overhauling all parts to be assembled and fitted back in position (spares – ship's supply). Linkages to be adjusted.	2	NO		
4	**BOWTHRUSTER: MAKE LIPS TYPE : FT 04 –2PL**				
	a) Fwd & Aft Bow thrusters to be removed from the tunnel trunks.The rubber mountings for the flanges of both thrusters to be renewed and also oil to be drained.	2	set		
	b) Tip clearance of Fwd & Aft bow propellers (8-blades in total) to be measured and recorded.	2	set		
	c) Bow Propeller Gear Boxes are to overhauled with new seals rubber rings and surveyed. Both Bow thrusters horizontal and vertical shafts to be examined. All bearings to be renewed. All worn out parts like seals, bushes, 'O' rings, etc to be renewed. Girder Ring, pre-stressed thrust compression element to be checked. All worn out elements to be renewed. Gears and shafts are to be DP/MPI tested for any crack and rectified if required. Shaft truness to be checked and rectified, if required. After completion of all repairs, the gear boxes are assembled back, pressure tested and leak proof to be shown to SS. Satisfactory trials to be shown to SS/IRS. All Spares - Ship supply.	2	set		

	d) All 08 nos. bow propeller blades are to be cleaned, inspected for any cracks by DP / MPI test and to be recitifed, if required. Propeller blades and cone to be polished buffed and applied one coat of grease. Any entangled fishing net, pp ropes, etc to be cleared.	2	set		
	e) Grinding of blade tips to smooth contour for crack-rectification to satisfaction of IRS	8	Nos.		
5	**KORT NOZZLE (MAKE: WARTSILA/TYPE NO. 4D775 - S0068M2H11)**				
	a) P & S Kort nozzle drain plug to be removed in presence of ship staff. Inside nozzle portions to be cleaned with water for removal of mud/debris, if any. Nozzle to be float coated with fish-oil (yard suppl), to put back plug and cemented. Complete Kort Nozzle to be checked for ovality (if any), calibrate before dismantling and after Assembly of CPP Blades and submitt report. Proper care must be excercised while assy of CPP blades into system and ensure no damages to CPP Blades and Kort Nozzles. Maintain Clearance as per OEM.	2	NO		
	b) Kort Nozzle to be pressure tested for no-leaks and any defect observed, same to be recitifed.	2	nos.		
	c) Insitu weld-build-up of worn-out welding areas, pitted portions, etc	50	Kgs		
	d) Renewal of Kort nozzle's thinned down/holed SS portion with compatible plate and electrodes	100	Kgs		
	e) Renewal of Kort nozzle's thinned down / holed MS plates / portion with compatible plate and electrodes	200	Kgs		
	f) DP/MPI/X-ray test to be carried out on welded seams	20	Mtr		
	g) Alignment of Kort nozzle to be calibrated w.r.t. to the Propulsion shafting and report to be submitted	2	Nos.		
	TOTAL FOR GROUP-E				

GROUP-F

COOLERS, SUCTION & OVERBOARD VALVES, STORM HYDRAULIC SLUICE VALVES

Sl. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**COOLERS OVERHAULING:**				
	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 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, plates to be tightened to the required distances and satisfactory trials to be shown to ship staff.(quote should be inclusive of chemical cost and other consumables)				
	a) CCW PlateCooler: Length: 1800 mm, Width: 900mm	2	No.		
	b) Forward Machinery plate Cooler Size: 940 x 3400mm - 52 Plates	2	No.		
	c) Harbour duty FW plate cooler Size: 1560 x 410mm - 25 Plates	1	No.		
	d) M/E LO plate Cooler Size:1500 x 400	2	No.		
	e) Hydraulic oil cooler Size: 250 x 1250	1	No.		
2	**OVERHAUL OF PUMPS:**				
	Following pumps to be taken to workshop for cleaning, inspection and overhauling , after disconnecting the pipelines and coupling. Shaft trueness & polishing to be done..After overhauling and re-assembly with new/reconditioned parts/old parts, new bearings (ship supply) to be fitted, gland packings to be renewed, pumps are to be fitted back in place with necessary connections, new gaskets(Supply & Cost by Yard) & bolts/studs and nuts (Supply & Cost by Yard)etc., and coupled, aligned with motor and satisfactory trials to be given to shipstaff. Pump housing and foundation to be chipped, cleaned and painted. (gland packings, gaskets, nuts & bolts/studs - all yard supply.)				
	(i) Flushing Pump (80Cu.m/hr)	1	No.		
	ii) Main S.W. Pump (270 Cu.m./hour)	2	No.		
	iii) D/P Gland Pumps (32 hp)	2	No.		
	iv) Forward Machinery CCW Seawater Pump.	2	No.		
	v) CCW Cooling Water Pump.	2	No.		
	vi) Bilge and Fire Pump. (110cu.m/hr, 40hp)	1	No.		
	Vii) Emergency fire pump.	1	No.		
3	**OVERHAULING OF SEA SUCTION, OVERBOARD DISCHARGE VALVES:**				

	Following underwater sea suction and overboard valves to be removed from position, transported to workshop. The above v/v's are to be dismantled, cleaned, inspected and completely overhauled. Clean all interior surfaces by scrapping, chipping and wire brushing to bare metal, apply apexier coating ensuring that all surfaces are entirely dry before coating.The v/v's are thoroughly overhauled, valve seats to be skimmed/lapped and discs, spindle trueness to be checked & repaired, renew packings and gaskets, pressure test and boxup valves after completion with new bolts/studs &nuts.Valves are to be presented to ship staff / IRS in open condition for inspection.Valve stub pipe to be chipped, cleaned and painted.After completion of all repairs/ overhaul, satisfactory trials to be shown.Stub pipe thickness to be gauged by Ultra sound & renewed where required (from bottom to be gauged).				
	Butterfly valves are to be dismantled from the line after removing all hydraulic actuators/connections.The valve rubber lining to be inspected and if any damages, same to be rectified for proper sealing. Shaft locking with flap to be checked & repaired as required...Inside surface to be thoroughly cleaned and painted. After testing valve for proper sealing to be fitted back and tried out. After completion of all repars / overhaul, satisfactory trials to be shown.				
	Valve outside to be chipped, scrapped ,cleaned and painted with one coat of epoxy primer and one coat of enamel / apexier paint.				
	Bolts, nuts, Studs, gaskets / packing for assembly of valves-yard supply.				
	Filters to be removed, filter & filter body to be cleaned, to be boxed up with new gasket.				
	Domestic Machinery room				
	a) Main S.W inlet butterfly valve (600 mm)	2	No.		
	b) Main S.W outlet butterfly valve (600 mm)	2	No.		
	c) Sea Chest vent (B/F) Valve- 300 dia	2	No.		
	d) Raw cool water suc.(B/F) valve (250mm)	1	No.		
	e) S.W inlet valve for dry tank No.4 (250 mm)	1	No.		
	f) Raw cooling valve. O/B valve (250mm)	1	No.		
	g) Jet Hydraulic operated B/F O/Bvalve 400mm dia	1	No.		
	h) Emergency fire pump O/B valve- dia 100 mm	1	No.		
	i) Harbour duty SW p/p o/b NR globe valve (65mm)	1	No		
	j) Oily water separator over board NR globe valve(50mm)	1	No		
	k) Fore peak dumping butterfly valve, dia 600mm	1	No		
	Pump room				
	l) Sea Chest vent valve (B/F) (150 mm- NB)	4	No		
	m) Sea chest inlet hydraulic operated B/F valve (600mm)	2	No.		
	n) Jet p/p discharge to draghead butterfly valve,300mm	2	No.		
	o) Flushing pump inlet (B/F) valve (100mm)	2	No.		
	p) bilge well pump O/B (G) valve (50mm)	1	No.		
	q) Jet pump hydraulic operated B/F valve (300 mm)	2	No.		
	r) E/R bilge pump overboard NR globe valve, dia 150mm	1	No.		
	s)P/R bilge pump overboard NR globe valve, dia 65mm	1	No.		
	Centre Keelson				
	t) Jet water line hydraulic opn butterfly vlaves (300 mm)	4	No.		
4	**Sea Suction Valves & Filters**				

	Disconnect valve complete from the line, transport to workshop. The V/v's are to be thoroughly cleaned and overhauled. Repairs to be attended, If required. Skimming valve seat and valve lid, skimming up of joint face of valve cover and valve body, re-assembling and fitting on board with new bolts and nuts and 'O' rings/ rubeer lining/ gaskets(yard supply),pressure testing of valve in wokshop. Satisfactory trials to be shown to ship staff.				
	a) All M/E's and A/E's drain valves of exhaust pipe are to be overhauled and drain pipes are to be cleaned:				
	i)Valves -40 NB	7	No.		
	-20NB	5	No.		
	b) E/R Main sea chest butterfly valves, dia 600mm	4	Nos.		
	c) E/R sea chest filter vent valve, dia 25mm	2	Nos.		
	d) P/R sea chest vent butterfly valve, dia 150mm	4	Nos.		
	e) P/R sea chest air blow NRGB valve, dia 32mm	4	Nos.		
	f) Jet pump suction butterfly valves, dia 300mm	2	Nos.		
	g) FWD machinery main sea chest butter fly valves, dia 600mm	4	Nos.		
	h) FWD machinery sea chest filters- to be cleaned,scrapped & painted & damage portion of the filter grating to be renewed, if reqd.	2	Nos.		
	j) FWD machinery sea chest filter vent NRGB valve,25mm	2	Nos.		
	k) O/H of Fwd M/c NRGB valve,50mm	1	Nos.		
	l) FWD machinery sea chest air blow NRGB valve,25mm	2	Nos.		
	m) Emergency fire pump sea suction NRGB valve, dia 125mm	1	No		
5	**STORM VALVES:**				
	a) Following storm valves are to be removed from the place. Valves are to be dismantled, overhauled, and cleaned , pressure tested and to be put up for IRS Surveyor's inspection. Damaged flaps are to be renewed and leather seating, brass cover plates, bolts & nuts, gland packings are to be renewed. All valves are to be applied two coats of Epoxy paint. After completion of all repairs, valves are to be offered for surveyor inspection. On Completion of Surveyor's final inspection, Valves are to be boxed back, pressure tested and fitted in place with new joint nut and bolts as required. Satisfactory trials to be shown.				
	i)125 dia	2	No		
	i) 100 dia	1	No		
	ii) 80 dia	1	No		
	iii) 65 dia	3	No		
	b) The Storm Valves are to be repaired as recommended by Surveyor.				
	i)The Valve Seat skimming	2	No		
	(ii) The Valve flap rubber lining renewal	2	No		
	(iii) The Valve Spindle manufacturing	2	No		
	c) Stub pipe to be chipped, cleaned and painted	2	No.		
	d) Non -return valves				
	i) 125 dia	1	No		
	ii) 100 dia	1	No		
	iii) 80 dia	1	No		
	iv) 65 dia	1	No		
	d) Overhaul of system valves				
	i) DLM Valves - 100mm	2	No		
	ii) HVLM Valve - 125mm	1	No		
6	**HYDRAULICALLY OPERATED SLUICE/GATE VALVES:**				

	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. . If the valve body in way of these rings are worn out same are to be built up and machined to original dimension.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. Renew of guide bars to be slide thickness +2mm. Guide bar metal to be high speed steel or stainless steel. 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. nose ring, buffer rings to be renewed, valve to be boxed-up.				
	b) Removing hydraulic cylinder from valve, renew all piston/bucket seals & gland seals, pressure test and fitting back overhauled 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) 500 mm	4	Nos.		
	ii) 700 mm	13	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/pitted portions on stainless steel slide to built up and ground to original sizes. Rate should be inclusive of cost of electrodes & machining	100	KG		
	e) Worn out/thinned down portions of water box valve body to be cropped and renewed. (Rates will be as per Gr-C steel renewal rates)	250	KG		
	f) Renewing the indicator unit (MS).	8	NO		
	g) Fabricating & fitment of new MS guide plates in the valve-body, as required – approx. size 230x80x20 – 4 Nos. (to guide the valve slide) to each valve.	40	No		
	h) Renewal of hyd operated butterfly valve (350mm) 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 - at yard cost & 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.		
	TOTAL FOR GROUP – F				

GROUP-G

DREDGING EQUIPMENT REPAIRS

S.NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT Rs. Ps
1	**DRAGHEAD AND INTERMEDIATE GANTRY (PORT & STBD)**: (After inspection, SS will decide the quantam of job to be done on gantries)				
	a) All four draghead and intermediate gantries to be dismantled completely after removing of all mountings and kept ashore for inspection by shipstaff. To be fitted back with new/reconditioned heel-bush-housings after repairs/overhauling.				
	a) Disconnecting hyd. Ram connections. Gas cut and remove the ram pin lock plate and remove the pin. After repairs to assemble back.	4	NO		
	b) Gantry to be removed from position using crane and shifted to dock side/workshop. After repairs to assemble back.	4	NO		
	c) Lock plate of head roller shaft is to be removed. Head roller is to be removed, after overhauling the roller, same is to be fitted back.	4	NO		
	d) Gantry heel bushes are to be checked for wear and tear, worn out bush to be renewed (Yard supply)	4	GANTRY		
	e) Gantry heel pins to be inspected, calibrated, checked for defects. Worn-out portions to be built-up and machined to original sizes.				
	i) Built-up & machining of heel pins	4	nos.		
	ii) Fabrication & renewal of heel-pins including drilling, tapping of bolt-holes, threading. Proper alignment of Heel-pins to be ensured for smooth movement & aligned movement of gantries. Heel-pin box-housing cutting & re-welding including internal stiffners/supports to be carried out. (Appox. Pin Dia:270mm, L- 450mm)	4	No.		
	(iii) Make & supply of New Gun metal Bushes as per insitu measurements, including drilling, machining, grooves for grease-passage and other precision jobs as necessary. Finished product weight will be considered.	80	Kg		
	f) All greasing lines to be freed, renewed whereever required, nipples to be fixed wherever required and satisfactory operation shown.	4	gantries		
	g) Grease lines to be renewed with adaptors/unioin-fittings and fitted with new pvc clamps. Cu-pipe OD 12mm approx.(all materials - yard supply)	50	RMT		
	h) Gantry head tumbler blocks to be removed from position, opened up and overhauled. Pins & bushes to be renewed whereever required and fitted back. Greasing passages to ensure clear.	4	NO		
	i) Gantries to be UT gauged	100	POINTS		
	j) If found below permissible limits to be cropped and renewed.	1	TON		
	k) Wooden fender brackets to be renewed and wooden block to be fitted on the chocks.	500	KG		
	l) Wooden fender renewal with nuts & bolts (yard-supply materials)	2	No.		
2	**GANTRIES PULLEYS:**				

	Following pulleys/tumbler blocks are to be removed from the place, after removing locking plate. Complete pulleys are to be thoroughly dismantled, inspected, cleaned and overhauled.Pins and bushes are to be removed. After inspection and overhauling, pulleys are to be fitted back with new /reconditioned pin and bushes. New Locking plate to be welded (including drilling/tappling of bolt-holes/threads on tumbler block). Greasing lines/passages to be cleaned, freed and made good..Pulley to be chipped & painted with one coat of primer & paint.				
	a) Gantry pulley (810mm diax 85mm thick) pin dia 145mmX 230mm long-24 nos	24	Nos.		
	b) Pulley (600mm diaX65mm thick) pin dia 100mmX180mm long-16 nos	16	Nos.		
	c)4 sets pulleys (dia 275 mmx25mm thick) -4 nos in each set	4	Nos.		
	d) 2 set pulleys(dia275mmX75mm thick)-8 nos in each set.	8	Nos.		
3	**P & S SUCTION TUBE ON DECK:**				
	a) Removing fitted dragheads to workshop and after repairs, brought back to vesssel and refit same/reconditioned draghead with new bolts and nuts (ship supply) to suction tube. Jet pipe alignment to be carried out as required. Packings (yard supply) for jet pipe to be renewed with ship-supply bolts & nuts.	2	NO		
	b) (i) Dismantling and removing the 700 NB suction pipes assembly (upper & lower pipes along with jet pipes), 16000mm long (approx) from position along with 2500x2500 gimble ring (cardan ring) and 2500 long/300NB & 1000mm long/300dia jet hoses, fork arms, jet pipes and suction & jet hoses etc. from the suction bend fork arm and to be kept on deck side/transported to workshop.After repairs (to various items), suction tube assembly & associated all mountings, fixtures are to be fitted to their respective original position on deck including pipe sections, suction pipe to be assembled with new/existing/reconditioned turning gland, gimble ring, fork arms, flexible rubber hoses etc. All sensors to be fitted back in respective positions & connections given.	2	SET		
	c) Complete Overhauling of gimble ring assembly (gimble ring with 2 fork arms), housing of bushes to be built up and machined (line boring), if enlarged. Pins & bushes to be renewed as required, locking plates to be renewed.				
	i) Removing & refitting of gymble rings	2	SET		
	ii) Build-up	40	KG		
	ii) Line boring of all holes of 1 Gimble ring	1	No.		
	d) pins & bushes to be renewed, assemble back and MS locking plates (200x100x20mm) to be welded				
	i) Pins	8	NO		
	ii) Bushes	16	NO		
	e) Suction bend with fork arm - housing of bushes to be built up and machined, if enlarged.	50	KG		
	f) Pins & Bushes to be renewed, assemble back and locking plates to be renewed.				
	i) Pins	4	NO		
	ii) Bushes	8	NO		
	g) Thinned down, wasted and corroded portion of the fork arms to be cropped and renewed as per drawing.	500	KG		
	h) Measuring the thickness of suction tubes pipes by UTG, Readings to be recorded and 3-set of copies are to be submitted to ship staff	300	POINTS		

	i) Fabrication of new suction pipe to the required length, and welding butt joint and making suction tube as per sample with existing flange out of 16 mm thick Lloyds Gr.A steel plate including new packing, new bolts & nuts & removal & fittment of all other fittings. Dia of pipe – 700 mm. Size of pipe renewal to be clearly mentioned in Workdone certificate.	10	TON		
	j) Lifting hook to be cropped and renewed size 350 x 230 x 30mm (Approx.) each	4	No		
	Connection piece to be removed & rewelded with new/repaired assembly. Pins to be made free movement	4	No		
	k) MS Channel for suction tube pneumatic depth indicator air pipe of approx. size 100 x 50 mm, on suction tube is to be cropped and renewed.. MS\-rodds (approx. 12mmdia, 100mm long) to be welded on the channel as required as per shipstaff instructions.	300	KG		
	l) Jet pipe MS box supports to be renewed if required.	200	KG		
	m) Removal & relaying of 1/2" dia pneumatic hose (for depth indicator) in the U-channel and connecting to the respective mud-boxes. Required 2" braided hoses to be renewed. Pneumtic hose (ship supply), braided hoses, jublee clamps/clips - yard supply.	2	SETS		
	n) Renewal of 2" PVC saddle (heavy duty) clamps (yard supply) on suction tube	20	nos.		
	NOTE: Rate for all above works must be inclusive of staging, supporting, other preparations and Asembly of systems , as required.				
4	**TURNING GLAND (P & S).**				
	a)Remove both the turning gland flange bolt & nuts (36 dia x 120mm -48 Nos) shift the turning gland from ship to jetty with shore crane.Two nos. Turning glands (700mm dia) to be completed dismantled. UTG to be taken of inner & outer pipes. all dismantled parts viz., inner pipe, outer-pipe, wearing rings, to be calibrated, male collar & female grooved worn-out portions to be build-up and machined to required dimensionas as per drawing. 'L' rubber ring/seal to be renewed. proper clearances as per drawings to be ensured. Rubber L-ring/seal to be renewed (all spares - ship supply). Turning gland to be assembled back. Stoppers/arresters to be fitted back to respective positions as per ship staff instructions.	2	Nos.		
	b) Worn-out portion of the male collars (of inner pipe) & female groove (of outer pipe) to be built-up and machined to required dimensions as per drawing. Rate including cost of electrodes ESAAB - Terro weld DBL/DMS or equivalent.	200	Kgs		
5	**SUCTION BEND TRUNION AND SUCTION BEND (P&S): 2 NOS.**				
	a) Both P & S gantries along with service frame & APRON (H-FRAME) to to be dismantled and kept ashore for inspection. To be fitted back after repairs	2	Sets		
	b) H-FRAME & A-Gantry heel pins and top pins are to be checked for wear and tear. Worn out pins to be renewed / reconditioned to original size. Hell Bush housing and cover to be built up and machined to original size. Lower-half Bush housing to be renewed, as required as per shipstaff instructions. locking plates to be renewed as required.				
	i) Heel pin bushes	8	nos.		
	ii) pins renewal of A-gantry & H-FRAME	14	nos.		
	iii) bushes renewal of A-gantry & H-FRAME	14	nos.		
	c) Greasing arrangements for heel bushes to be ensured free and made good including renewal & proper securing/clamps arrangements	8	nos.		
	f) All greasing lines of gantry & H-frame to be freed, renewed whereever required, nipples to be fixed wherever required and satisfactory operation shown.	2	Sets		

	i) Grease lines to be renewed with adaptors/union-fittings and fitted with new pvc clamps. Cu-pipe OD 12mm approx.(all materials - yard supply)	50	RMT		
	g) Gantry head tumbler blocks to be removed from position, opened up and overhauled. Pins & bushes to be renewed whereever required and fitted back. Greasing passages to ensure clear.	2	NO		
	h) i) Gantry and H-FRAME to be UT gauged	50	POINTS		
	ii) If found below permissible limits to be cropped and renewed.	1	TON		
	d) Suction bend gantry & A-FRAME all bushes to be renewed as per instructions .(Pins & bushes Ship supply)				
	I) Pin Renewal	4			
	ii) Bush Renewal	4			
	f) After renewal of pins & bushes, suction bend gantry & H-FRAME to be tried out for proper alignment.	2	SET		
	h) STPM Service frame and gantry to be UT gauged and wasted areas to be renewed	200	kgs		
6	**SUCTION BEND & SUCTION SLIDE:**				
	a) 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		
	b) Renewal of the damaged or worn out L-ring of the suction slide (L-ring ship supply)	2	Nos		
	c) Wedge pieces (ship supply) to be renewed along with the rod and adjusting position of slide with suction mouth in docked condition.	4	Nos.		
	d) wearing rings to be renewed on slides as per instructions.	2	Sets		
	e) Worn out areas of slides to be built up with suitable electrodes & machined including studs area, as per instructions and wearing plates to be renewed as per instructions.	100	Kg		
	f) Re-sleeving & re-tapping of worn-out threaded stud-housing	100	KG		
	g) Locking plates to be welded for all the studs as per ship staff instructions	80	Kg		
	h) Suction Bend arm piece bush and pin to be renewed and secured with new locking-plates	4	NO		
	i) Suction bend fork-arm bush housing to be built-up & machined/line-boring) to required dimensions.	150	Kg		
	J) Both port and starboard suction bends pipes (inner portion) to be applied layer of plastic carbide putty (ship supply) for wear-protection as advized by SS/Superintendent if required	100	KG		
	k) Suction bend pipe rotating gland collar/flange to be built up with suitable electrodes and machined to required size/dimensions 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 (rubber) & Spacer ring to be renewed from ship-spares	2	NOS		
	n) P & S Suction mouth liners to be renewed (Dia700mm, Length Approx.1700mm, 16mm THK).	960	kgs		
	o) Worn-out/thinned down portions of Ship-side rails (port & stbd) to be build-up with suitable electrodes and ground evenly for smooth working/sliding of suction slide & minimum clearances	300	Kg		
	o) After completion of repair of suction slide as above, all parts of the slide are to be assembled and brought back to the Vessel, and with crane's help, same to be slide/tried-out in the ship side rails for checking the alignment of the slide with the shipside mouth.Wedge of the slide to be adjusted for proper alignment & working clearances with ship's side mouth face and slide face, checked and to be shown to the ship staff.	2	nos.		

	i) Pitted/worn-out portions of the ship side sea suction & jet discharge mouth collar/flange to be built up and ground to maintain the gap/clearance between slide face to shipside mouth face all-round equal. If the shipside mouth round pad is wasted same to be renewed. welding of worn-out weldings of collar/flanges also to be carried out.	150	Kgs.		
	ii) Both port and starboard suction mouth flat ring to be renewed if found worn out. To be properly aligned maintaining required clearances. APPROX. Size : 700 ID x 1100 OD x 25 mm thick	200	KGS		
	Jet discharge mouth collar Outside face to be built-up machined for ensuring proper alignment and minimum clearances all-around, when the suction slide in position.	75	kgs		
7	**HYDRAULIC CYLINDERS:**				
	Hyd. Cylinder to be disconnected from place by removing all connections and shift to workshop. Hyd cylinder to dismantle, clean, inspect and overhaul. Piston seals, bucket & gland seals to be renewed from ship stock. Hydraulic rams to inspect, polish with oil-stone for removal of any scorings marks, etc,. Ram-threaded portion to be cleaned. Hyd. Cylinder end swivel bearings (ship supply) to renew. Cylinder exterior to be chipped, cleaned thoroughly and apply two coats of buff paint.Cylinder to be boxed back and pressure tested, satisfactory trials to be shown to ship staff. Note: Removal/extraction of ram-pins, pistons, etc by hydraulic/jig-fixture/flame-cutting/any other means/methodology, etc to be considered in the scope of work and no additional charges will be applicable for the hydraulic cylinder repairs.				
	a) Port & Stbd draghead gantry cylinder Ø275 x Ø140 x 1715	2	No		
	b) Port & stbd intermediate gantry cylinder Ø275 x Ø140 x 1715	2	No.		
	c) Bottom doors cylinder Ø320 x Ø160 x 1715	14	No		
	d) Overflow duct cylinder cylinder Ø250 x Ø160 x 4600	1	No		
	e) Trunion gantry (P&S) cylinder Ø200 x Ø100 x 530	2	No.		
	f) Steering gear hyd cylinders	4	No.		
	g) Swell compensator and wire tensioner cylinders Ø200 x Ø200 x 2000	2	No		
	h) Chrome plating to be carried out on above cylinder rams. (If required) Note: Minimum 0.5 Sq Mtr per cylinder will be admitted	8	sq mtr		
	Note: Chrome plating of ram, polishing & grinding , if required to be carried out suitable for marine applications / environment				
8	**HYDRAULIC WINCHES:** Following winches including rope drum, hydraulic brakes and hydraulic motors are to be dismantled, inspected, overhauled, and assembled back with new seals, bearing, 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) Trunnion winch (P&S)	2	No.		
	d) Winch foundation thinned/wastred plates to be renewed.	500	Kg		
9	**MOORING WINCHES**				

	a)AFT & FWD winches including rope drum, hydraulic brakes and hydraulic motors are to be dismantled, inspected, overhauled, and assembled back with new seals, bearing, 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.	4	Nos		
	b) Winch foundation thinned / wasted plates to be renewed.	1	TON		
10	**TRAVELLING DECK CRANE (CAPACITY 13 TONS) (After inspection SS will decide the quantam of job to be done on Crane)**				
	a) Damaged or worn out cable track, toothed track to be renewed	500	Kg		
	b) Complete overhauling of pulleys/sheaves of deck crane.Pins and bushes to be inspected and renewed with ship supply spares, if required (Removal and fitment included)	4	No		
	c) Cargohook to be opened and overhauled and annual inspection & load test to be done and certificate to be submitted to SS.	1	LS		
	d) Crane traveling / guide wheel / rollers removal, overhauling and fitting back with new bearings (Spares Yard supply).	16	NO		
	e) Rollers to be checked for worn out condition and necessary build-up and machining to be carried out for required size.	100	KG		
	f) Greasing system to be checked, pipes / nipples to be renewed, if required and satisfactory operation to be shown to ship staff.				
	i) pipes	10	MTR		
	ii) Grease nipples	10	NOS		
	g) Renewal of thinned down frames, brackets, stiffners and deck crane platform including operator cabin repairs.	0.6	TON		
	h) Cable Reeling motor and gear box to overhaul.	1	LS		
	i) Cable laying, if required	40	RMT		
	j)safety limit switches for fwd/aft travel and hoist lower to be fitted and rewiring to be done and limits to be adjusted . After commissioning satisfactory trails to be shown to SS.	1	LS		
	k) Travelling motor gear box to overhaul. (Spares Yard supply)	1	LS		
	l) Alignment of the Deck crane track with pinion to be checked and corrected. Damaged / worn out track to be renewed with ship supplied spare. Crane movement to be checked after repairs and satisfactory trials to be shown.	1	LS		
	OR				
	l) Alignment of the Deck crane track with pinion to be checked. Worn out area on the track to built up and grind to the profile.	250	Kg		
11	**WINDLASS:(MAKE: BRUSSELLE CARRAL MARINE NV; BELGIUM; TYPE: M25/1)**				

	a) Windlass motor to be disconnected, decoupled, complete windlass unit along with gear-box to be removed from position, taken to workshop, dismantled, opened, cleaned, inspected and complete windlass to be overhauled. Gear box to be thoroughly inspected for any defects, gear-backlash to be checked, leaky shaft seals, bushes, bearings, if required, to be renewed from ship-spares. All bearings, seals and brake bands to be renewed. Windlass main shaft trueness to be checked, if required..G/B Oil to be renewed. During overhaul, any defect observed, same to be rectified / repaired / renewed. After completion of repairs, chipping and painting of windlass to be done. Foundation bolts & nuts (yard supply) to be renewed. satisfactory trials to be shown to shipstaff.	2	No.		
	b) Renewal of brake liners including brass CSK screws & nuts etc.,130 x 1170 x 14 mm thick - 2no./brake	2	Sets		
	c) Gypsy to be buildup with suitable electrodes	100	KGS		
	d) worn-out portions of Dog-clutch to be build-up and ground to required profile.	50	kgs		
	e) worn-out Mating portions of engage/disengage to be build-up and ground to required profile.	25	kgs		
	f) All Greasing lines of each windlass to be checked & ensure clear passage	2	NO.		
	g) Renewal of Windlass foundation plates/structure (including bolt-hole-drilling)	200	kgs		
	TOTAL FOR GROUP-G				

GROUP-H					
ELECTRCAL JOBS, MOTORS, ALTERNATORS & INSTRUMENTATION JOBS					
Sl. No	Description	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**ALTERNATORS:**				
	AUXILLARY GENERATORS (440 KVA/350KW, 415 V, 50 Hz Auxiliary Generator) - 03 NOS.				
	a) i) Disconnect, decouple, remove from position, dissemble complete ALTERNATOR , rotor & stator windings to clean, varnish and baked. Winding Insulations to be measured & recorded before and after repairs. Slip rings to clean, brush holders to remove and clean. Insulation to improve, check and maintain the air gap. Respective exciter units also to be cleaned varnished and baked. Inspection window cover to renew. DE & NDE Bearings (Yard supply) to be renewed. Winding temperature sensors to be checked, inspected, calibrated. If required, same to be renewed (Yard supply)..after overhauling, alternator to be taken on board, fitted in position, aligned with prime-mover, coupled, electrical connections to be given. Satisfactory load trials to be shown to ship staff on completion of job. Rotating rectifier diode assembly to be checked & replaced as required.	2	No		
	ii) Re-sleeving of end covers	4	No		
2	**ELECTRICAL MOTORS:**				
	The following motors are to be removed from position after decoupling, transport 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(yard supply), varnished and baked, insulation to improve, damaged terminal covers/blocks to renew, if bearing housing is loose, same to be re-sleeved. for E/R & P/R blower motor, dynamic balancing of rotor with fan/impeller to be done and report submitted..any other defect if observed, same to be repaired/rectified). *Note: for BT motors, space heaters to be checked & repaired. slip-ring set/asssembly to be removed, dismantled, checked, polished, insulation barriers to be checked & replaced if required, carbon brushes & brush holders to be cleaned & renewed (from ship stock) as required, Rotor winding cables to slip rings to be checked, damaged lugs to be replaced as required.slip ring set to be assembled & fitted back. Foundations of Motors and pumps are chipped, cleaned and painted.*				
	a) 300 KW,				
	i) bow thruster motor	2	No		
	b)55 KW				
	i) a/c compressor motor	2	No		
	ii) hydraulic LP pump motor	6	No		
	c)30 KW				
	i) Steering gear motors (P & S)	2	No		
	ii) Raw cooling water (RCW) pump motors	2	No		
	iii) Bilge/ballast/G.S /Bilge Fire pumps	1	No		
	iv) Main CCW pumps motors (E/R)	2	No		
	d) 22 KW				
	Anchor windlass motor	1	No.		
	e) 20 KW				

	Pump room Gland flushing pump motor	2	Nos		
	f) 15 KW				
	i) Flushing water pump motor	2	No		
	ii) Domestic raw water pump motor	1	No		
	iii) CPP motors (P & S)	1	No		
	iv) E/R fan motor	5	nos.		
	v) Lifeboat Davit winch motor (stbd)	1	No		
	g)11-12 KW				
	i) Domestic fresh cooling water pump motor	1	No		
	AUXILIARY ENGINES (03 NOS):	2	No.		
	h) 7.5 KW	3			
	i) starting air compressor motor	1	No		
	ii) Lifeboat Davit winch motor (P)	1	No		
	i) 5.5. KW	1			
	i) Refrigeration Domestic fridge ompressor motor	2	Nos		
	ii) Deck crane motors	2	No.		
	j) 4 KW	1			
	i) EVAC pump motor	1	Nos		
	k) 2.2KW				
	BT room fan motor	1	Nos		
	l) 1.5 KW				
	i) fuel booster pump motor	2	No		
	ii) Hydrophore pump motor	2	No		
	iii) Sanitary blower	1	No		
	iv) Steering room blower	1	No		
3	**VENTILATION BLOWER MOTORS WITH CASING:**				
	a) Blower trunking to be removed from positon along with blower motor.. Motor to be dismantled and overhauled. Trunking, motor foundation and fan to be repaired as necessary. Shaft trueness to be checked..Fan balancing to be checked and rectified. Bearings to be renewed (ship supply). Bearing end covers resleeved, if required. Resilent mounting bolts to be renewed & canvas to be renewed. Complete blower including motor to be thoroughly overhauled, baked and insulation to be improved. Electric motor, fan and trunking to be chipped, cleaned, fan to be polished and painted with one coat of primer & 2 coats of light grey colour. (Rate should be inclusive of dynamic balancing).				
	i) ER supply (S4,S5,S6 & S7) - 15 KW	4	No		
	ii) ER supply / exhaust E6, E7 - 7.5 KW	2	No		
	iii) P/R supply/exhaust - 7.5 KW	1	No.		
	iv) Galley supply/exhaust- 2.2 KW	2	No.		
	v) Bow thruster room blower - 2.2kw	1	No.		
	vi) DMS blower motor - 10 KW	1	No.		
	vii) Accommodation blower motor 11 KW	2	No.		
	viii) Pump room blower motor Port capacity 11.5 KW	1	No.		
4	**Switch boards:** the following switch boards are to be vaccum cleaned, blow-through of connections and components, checking of fuse bases for loose mountings, renewing ship supplied spares if required and overhauled. Insulation to be improved.Cleaning of bus bars including any sulphidation and tightening of all bus bar connections and connecting internal switches and relays.Satisfactory trials of switchbords are to be shown.				
	a) Main switch board in ECR	1	LS		
	b) Hydraulic panel switch board	1	LS		
	c) Forward machinery switch board	1	LS		
	d) Emergency switch board	1	LS		

5	**Moulded-case CIRCUIT BREAKERS (MCCB)**				
	servicing of MCCB to be carried out..Checking of Case insulation, Gear-motor mechanism & its charging time, condition & measure insulation resistance of breaking unit (arc-chutes, contacts), preventive replacement of control auxillaries, micro-logic control unit performance, and other checks as per OEM-standards..All safety cut outs, trips & relays to be checked, adjusted & calibrated for proper functioning and tried out. Any defective part to be replaced.	8	No.		
6	**Electrical cabling & conduits**				
	Renewing cable (3 or 4-core) from switch board/electrical equipment to different circuits including cable cost and securing with cable ties/clamps (inclusive of removal of existing cable, necessary obstacles viz., panelling, ceiling, etc., If any).				
	5A	10	Mtr		
	15A	10	Mtr		
	25A	10	Mtr		
	50A	10	Mtr		
	65A	10	Mtr		
	100A	10	Mtr		
	250A	10	Mtr		
	ii) Conduit pipes to be renewed (inclusive of removal & refitment of cabling				
	1/2"dia & less	10	Mtr		
	1" dia	10	Mtr		
	1.5" dia	10	Mtr		
	2" dia	10	Mtr		
	2.5" dia	10	Mtr		
	3" dia	10	Mtr		
	4" dia	10	Mtr		
	5" dia	10	Mtr		
	6" dia	10	Mtr		
	iii) Renewal of perforated cable-trays (Material: GI-heavy-duty, yard supply) with bottom supports				
	Width 25mm & less	10	Mtr		
	Width 50mm	10	Mtr		
	Width 75mm	10	Mtr		
	Width 100mm	10	Mtr		
	Width 150mm	10	Mtr		
	Width 200mm and above.	10	Mtr		
7	**INSTRUMENTATION**: (After Inspection , Ship staff will decide the quantam of job)				
	The following instumentation systems (complete) to be cleaned, checked , inspected, overhauled, serviced, calibrated including sensors, transducers,v/v's , air pipe and renewal of cable etc (ship supply) by OEM represntative. After completon of all repiars/ renewal, satisfactory sea trials to be shown to SS.				
	a) ECHO SOUNDER:	2	NO		
	b) DLM including HVLM:	1	NO		
	c) PORT & STBD STPI	2	NO		
	d) Doppler speed log	1	No		
	e) Magnetic compass to be swung after drydocking and deviation card to be issued.	1	LS		
	f) Gyro Servicing	1	No		
	g) Both Radars Servicing	2	No		
	h) SRT Radio Survey	1	LS		
	i) SVDR Servicing / APT	1	LS		

8	Replacement of Density (NG) and Velocity meter / sensors alongwith pipe (Dia 700, L-1.2m each) from Pump room dredge discharge line, with DCI supplied new Density (RF) & velocity sensors alongwith pipe. **Note: Yard to quote for removal and refitment of the pipes and providing assistance to OEM.**	4	Nos.		
9	Panel mounted meters / indicators of Bridge, ECR, Hydraulic Panel,Local control, MSB & ESP to be removed, calibrated and fitted back. To be shown to ship staff in working condition. (Ammeters, Voltmeters, Frequency meters, speed indicators, pr. indicators, temp. indicators, etc.,)	200	Nos		
10	Following transmitters / MV amplifiers / Pr. switches to be removed, calibrated and fitted back. To be shown to ship staff in working condition.				
	a) Pressure transmitters	2	NO		
	b) D/P PR Transmitters	2	NO		
	c) D/P vacuum transducer + PR MV amplifier	2	NO		
	d) Pressure switches	2	NO		
	Note: Defective indicators & transmitters, if any, to be replaced with Yard's spare				
11	To procure and install new water tight Tube light fittings (IP 68 Complied, Twin tube 2 Feet length) around the accommodation as per instruction of ship staff	25	Nos		
12	Damaged and rusted safety switch boxes along with base plates on the weather decks to be renewed (Spare Yard supply) Size: Approx.200 x 150 x 120mm	20	Nos		
	TOTAL FOR GROUP-H				
NOTE:					
1. Rate shall include staging & other preparations as required, transportaion to workshop for repairs and					
2. After repairs, all the above items are to be tried out for satisfactory operation.					
3. Service engineer charges+ 10 % will be paid.					
4. Necessary assistance to be provided by the yard timely to the OEM as required.					

GROUP – I					
MAIN ENGINES, AUX. ENGINES, DR P/P, JET P/P, COUPLINGS & AC PLANT					
Sl.NO	DESCRIPTION	Qty.	UNIT	UNIT RATE	AMOUNT RS. PS
1	**One Main Engines (MAN B & W - 6L 40/45, 525 RPM, 2900KW)** (Proportional Cost will be paid for the partial job if done):	1			
	a) Main Engines crossed more than 10,000 RH and top overhauling as per OEM mannual and decarbonization of the units to be done as per OEM maintenace schedule.(Spares- ship's supply).	1	Engines		
	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 including crank web deflections and report submitted to CEO.	1	Engines		
	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.	1	Engines		
	d) Torsion vibration damper to overhaul and sleeve springs to renew, if required. To be surveyed and boxed back and fitted back	1	Engines		
	e) Crank case safety valves inspection and overhauling for ease of movement and parts to renew as required . Spares ship supply.	1	Engines		
	f) Inspection of gear trains for wear & tear, pitting, corrosion, etc. and measure gear backlash.	1	Engines		
	g) 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.	1	Engines		
	h) 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.	1	Engines		
	i) 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, overhaul of air starting valve, y-piece 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)	1	Engines		

	j) Taking out piston from connecting rod, measuring gudgeon pin and bush clearances. Complete piston to dismantled, cleaned, inspected and overhauled including the NRV. During inspection, any defect observed, same to be renewed/ repaired/ rectified. After completion of overhaul, same to be assembly back.	1	Engines		
	k) Piston grooves, shroud clearances etc., to record and overhaul Non- return valves & oil passages to clean, cleared and assembly back.	1	Engines		
	l) Removal and fitment of crank pin bearings and crank pin ovality calibration, determine the bearing clearance. Bearing caps / housings ovality to record and necessary repairs to carry out as required. Bearings, con rod bolts and big end bearing bolts to be renewed(Ship supply)	1	Engines		
	m) i)Removal and fitment of main bearings including the thrust bearing, main journals calibration and record the bearing clearance. Bearings, studs & nuts to be	1	Engines		
	ii) all cam bearings to be renewed. Required tools for the renewal of cams & cam bearings must be arranged by yard at their cost & time.	1	Engines		
	n) Measure cam shaft bearing clearance, check bearing surfaces and renew the bearings.	1	Engines		
	o) All liners to be pulled out from entablature and cooling water spaces to be thoroughly cleaned. Liners to be calibrated and renewed if required. Re-usable liners to be honed before assembly.	1	Engines		
	p) Spiroflex elements to be inspected and alignment to be made with propulsion gear box and dredge pump gear box. If required elements to be renewed. Shaft generator elements to be inspected, renewed, if required.	1	Engines		
	q) F.W. and nozzle cooling spaces to be chemically cleaned and pressure tested and defects to be attended. Renew pipes and adaptors if required	1	Engines		
	r) Exhaust gas pipe flange connections and compensators to check for leaks and defects to rectify. Rate should be inclusive of copper gaskets, bolts & nuts and other consumables.	1	Engines		
	s) To overhaul FO buffer piston, overhaul all Fuel delivery pumps (6 Nos each engine), Injection pumps, Fuel linkage bearings, Rocker arm bushes, Fuel valves, Air starting valves, Indicator cocks and defects to rectify.	1	Engines		

	t) Main starting air v/v's , startng air valves and air distributors to overhaul. Dismantle and overhaul control air valves of 10 & 30 bar system, replace wear parts.	1	Engines		
	u) Complete manoeuvering system comprising pneumatically operated valves to be serviced/inspected, renewed If	1	Engines		
	v) After assembly bumping clearances of all the units, Fuel delivery timings to be checked and adjusted.	1	Engines		
	w) 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	1	Engines		
	x) 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.Satisfatory sea trailsto be shown to ship staff.	1	Engines		
	y) The Woodward governors to be serviced by OEM and fitted on engines and fine tuning w.r.t engine to be done by service engineer. **Quote only for yard assistance for the above removal, refitment, transport and assistance etc.**	1	NOS		
	Note: 1) Yard should have expertise in overhauling of this type of engines. Hence, OEM Service Engineer need not be engaged. If required, yard may enagage OEM services at their cost & time. 2) Quoted cost must be inclusive of All Cyl Liners Honning, renewal of all Valves, bearings and other requirement. All Valve Seats, guides, bushes, v/v seat landing area Grinding / Lapping & Machining by Competent Person. 3) Proportionate rate shall be applicable for the partial/ Part work completion. 4) During overhauling, if found any parts renewal,same are to be renewed (Spares ship supply).				
2	**AUXILIARY ENGINES (03 NOS):**				

	Auxiliary Engine MAN D2842 LE, 380 KW. Complete overhauling of engine to be done . Various clearances / measurements as required to be taken, including crank shaft. TC, Air Cooler, FW cooler, attached pumps, governors, turbochargers and other connected accessaries to be thoroughly overhauled. All safety cut outs to be checked, overhauled and calibrated.During inspection/overhauling, any defects observed, same to be rectified/ repaired/ renewed. After completion of all repairs, satisfactory trials to be shown to shipstaff.	3	No.		
3	**AC Plant: MAKE: MODEL: CAPACITY**				
	i) a) Complete Overhauling of AC system compressors to be done. During overhauling, any defect observed same to be rectified/ repaired. All necessary parts are to be renewed with shipsupply spares. After completion of all repairs, satisfactory trials to be shown to shipsstaff.	2	Nos.		
	b) AC plant evaporators to be chemically cleaned internally and externally overhaul and pressure tested for no leak. Pressure test to be shown to SS. System to be flushed with nitrogen and vaccum tested any leakage found to be arrested/rectified	1	LS		
	c) Condensers to be chemically cleaned, overhauled and pressure tested. and shown to SS. Any Leakage observed, same to to arrested or rectified.	1	LS		
	d) complete A.C system to be flushed out with nitrogen and vacuum test to be carried out. Defective orifices to renew. System to be charged with fresh gas(Yard supply). All safety cut outs and alarm to be checked , calibrated , tested and satisfactory trials of the plant to be shown to SS. Any leakage found to be arrested/rectified.	1	LS		
4	**DOMESTIC REFREGERATION SYSTEM Type: Bitzer-V2 Cylinder**				
	a) Both compressor to be dismantled, cleaned , overhauled. Necessary required parts to be renewed. On completion of overhauling both compressor to be tried out for satisfactory operation. (All necessary spares to be supplied by yard)	2	NOS		
	b) Domestic refrigration system evaporators to be chemically cleaned internally and externally, overhaul and pressure tested for no leak. Pressure test to be shown to SS.System to be flushed with nitrogen and vaccum tested, any leakage found to be arrested/rectified.	3	LS		

	c) Domestic refrigeration system condensers to be chemically cleaned, overhauled and pressure tested. and shown to SS. Any Leakage found to be arrested/rectified.	3	LS		
	d) Complete system to be flushed out with nitrogen and vaccum test to be carried out. System to be charged with fresh refrigrant (Yard supply). All safety cutouts and alarms to be checked, calibrated, tested and satisfactory trials to be of the system to be shown to SS. Any leakages found to be rectified.	3	LS		
	Note: For Sl No:5 &6, the quote should be inclusive of staging, supply of gas/refrigerant, arresting leaks, chemicals and consumables, brazing works, etc				
5	main air bottle mountings to be overhauled and pr. testing to be shown to ship staff &IRS, both bottle to be cleaned then pr tested to be down,relief v/v to be tested and survey to be done.All aux. air bottel relief v/v and drain v/v to be overhauled, pr. tested to be shown to ship staff.	2	No.		
6	**DREDGE PUMPS PORT &STBD: Following job to be done on both Dredge Pump.**	1	No		
	a) Removal & fitment of wedge pipe / expansion piece with new rubber cords/packings (yard-supply) including blanking of suction line, as required.	1	nos.		
	b) Removal & fitment of suction end cover with new rubber cords & packings.	1	nos.		
	c) Removal & fitment of discharge end cover with new rubber cords & packings.	1	nos.		
	d) Removal & fitment of new impeller/existing/reconditioned impeller	1	nos.		
	e) Removal of diaphragm plate, seal-pot unit/assembly, chrome bush/sleeve & re-fitment of parts.	1	nos.		
	f) Removal & refitment of flushing water chamber with new o-rings, screws/bolts, etc	1	nos.		
	vii) Renewal of wear plates on suction & discharge side including welding of ms-lugs (ship supply)	1	nos.		
	viii) Make & supply of MS wear plates of thckness 14-30mm) for suction & discharge side end covers	750	kgs		
	ix) Apply plastic carbide (ship supply)	50	kgs		
	x) Casing, Impeller and end cover to be build up as found necessary				
	a) Buffer Layer (7018)	300	KG		
	b) Hard facing	200	KG		
	Note: the works at (ii) to (iv), (vii) to be carried out till the desired suction & discharge side clearances are achieved by adjustment of clearances to shipstaff satisfaction.				

	iii) Spiro flex Coupling pair (between pneumoflex coupling & main engine) to be renewed with ship spares.				
7	**JET PUMPS (HORIZONTAL SPLIT-CASING TYPE) - P&S**: Both Jet pumps toothed-gear coupling alignment to be checked, axial & radial alignment readings to be taken before removing jet pump from position...Pump to be dismantled, coupling to be removed and overhauled completely. Wear rings, shaft sleeves and Impeller to renew .Both end bearings to renew. During overhauling any defect observed, same to be rectified/repaired/renewed. toothed-gear coupling to be cleaned, inspected & any defects noticed to be rectified. After completion of repairs, pumps to be boxed back with new joints (yard supply), pressure tested for 15 bar for no leak..Pump to be fitted in place, proper alignment done and satisfactory trials to be shown to SS. spares ship supply	2	NO		
	Pitted/holed portions of casings, wear-ring landing/seating area to be weld-build-up with suitable electrodes and line-boring of (top & bottom casings together) wear-ring landing area to be carried out				
	Build-up	75	kgs		
	Line-boring	2	nos.		
8	**OILY WATER SEPARATOR**				
	Make: RWO; Type: SKIT S-10				
	a) Oily water separator to be dismantled, completely overhauled, filters and spares to be replaced with ship supply, box back the unit and show satisfactory operation.	1	No		
	b) Calibration of OWS 15PPM monitor to be carried out and certificate to be issued, to comply with MARPOL Annex-I.	1	No.		
	TOTAL FOR GROUP-I				

GROUP-J

MISCELLANEOUS MECHANICAL & ELECTRICAL JOBS

Sl. No	Description	QTY.	UNIT	RATE	AMOUNT Rs. Ps.
1	**AIR HOOD/ AIR VENTS:**				
	Air hoods to be removed, repaired and refitted back as per instruction of ship staff.after dismantiling the air hoods, same are to be presented for Surveyor's inspection. All spares yard supply.				
	a) Repair & complete overhauling to be carried out on air hoods/air vent as per instruction of surveyor	50	Nos.		
	b) Outer & inner shalls including flange to be cropped & renewed where found holed or wasted with new nuts & bolts	500	kgs		
	c) Wire mesh side covers to be renewed where wasted including drilling, tapping & fitment with new nut & bolts	500	kgs		
	d) Wire mesh to be renewed with stainless steel mesh whereever required	100	sq mtr		
	e) Renewal of air hood.				
	i) renewal of air hood, air vent (cost of material extra)	10	nos		
	ii) Cost of air hood	10	nos		
	f) Renewal of air-vent pipe (60-150mm)	20	Mtr		
2	**ER / PR / FWD MACHINERY SPACE / BT Room / ESCAPE HATCHES, SKYLIGHTS / MUSHROOM VENTS / STEERING GEAR ROOM:** Repair on escape hatches and covers to be carried out as per instructions of the ship's staff- coaming/rubber packing/ hatch body/toggles / brackets/ counter-weight parts, water tightness of the hatches to be ensured after repairs are carried out.				
	a) Steel renewal	300	KGS		
	b) Rubber packing renewal includes cost of packing, etc.	100	MTR		
	c) Free movement of all butterfly nuts / hinges to be shown, hose testing for water tightness and rectification of defects.	8	Hatches		
3	**WEATHER TIGHT DOORS** a) Weather tight doors to be set for proper sitting,locking to be checked, rubber / sponge packing to renewed as required and chalk test to be carried out in presence of ship staff. Hose test to be shown to Ship staff. On completion of repairs, satisfactory operaton of doors to be shown to ship staff.	5	NOS		

	b) Steel renewal including testing for water tightness	0.5	TON		
	c) Sponge rubber packing renewal including packing, etc.	50	MTR		
4	**PORT HOLES (600 X 450mm):**				
	a) 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		
	b) Renewal of port hole hinges (2 Nos. per port hole), as required	40	Sets		
	c) cabin windows rubber packing to be renewed with new packing. Damaged window glass retaininng strips to be repaired and tested for water tightness. Quote should be inclusive of rubber packing & repairs.	15	Nos.		
	d) Steel renewal on Port hole coamings	100	Kg		
5	**LIFE BOATS:**				
	Annual servicing of Life boat, davit & winches to be done with MMD approved repair firm. Lifeboat davit UTG , chipping & painting to be done. Lifeboat davit steel renewal to be carried out Static & dynamic load testing to be carried out Lifeboat pully to be opened, inspected & worn out bushes to be renewed. All trials to be shown to SS & IRS surveyor. After completion of repairs servicing & survey necessary certificate to be obtained & provided to vessel. MMD approved repair firm, cost of doing above jobs to be paid at actiuals + 10% extra. *** Spares DCI supply.	2	Nos		
	TOTAL GROUP FOR-J				

GROUP - K

COST PLUS JOBS

S.NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT RS. PS
	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 reasonableness of the claim:				
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				
	Paints Cost and other 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	**Make and supply Items**				
	a) MS Finished Products	20	KG		
	b) EN Finished Products	20	KG		
	c) SS Finished Products	20	KG		
	d) Gun metal Finished Products	10	KG		
	e) Bronze Products	20	KG		
	g) Cast Steel Products	20	KG		
	h) Aluminium Products	10	KG		
	i) Manganese steel Products	10	KG		

	NOTE: Finished product weight should be clearly indicated in the work done certificate. Minimum 1 kg / pce will be considered for weight lessthan one Kg.. If the quantity is more than 5 nos and weight less than 5 Kgs, Minimum 5 kgs can be considered. If Weight morethan 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. All precision jobs viz., drilling, tapping, grooving, etc to be considered inclusive in above quoted rates.				
3	Rate per Sq.M. of renewal (including removal & surface preparation)				
	a) Ceramic tiles in bath rooms	75	SQM		
	b) Cabin flooring (Vinyle sheet)	75	SQM		
	c) Deck compound 25 mm thick	75	SQM		
4	Removal & refitment in accommodation / other areas per Sq.M.				
	a) Ceiling panel	75	SQM		
	b) Bulk head panel	75	SQM		
	c) Insulation	75	Sq.M		
	c) Renewal of glass wool 50 mm thick	75	SQM		
5	Surface preparation and other Jobs				
	a) Chipping	50	Sq.M		
	b) Scrapping	50	Sq.M		
	c) Wire brushing	50	Sq.M		
	d) Power Brushing	50	Sq.M		
	e) Ordinary water wash	50	Sq.M		
	f) Cleaning with cotton rags	50	Sq.M		
	g) One coat of paint by spary/ coat	50	Sq.M		
	h) Copper slag blast SA 1.0	50	Sq.M		
	i) Copper slag blast SA 2.5	50	Sq.M		
6	Renewal of Pipe clamps (GI/MS)				
	a) 25 mm dia	25	Nos		
	b) 50 mm dia	25	Nos		
	c) 75 mm dia	25	Nos		
	d) 100 mm dia	25	Nos		
	e) 150 mm dia	25	Nos		
	f) 200 mm dia	25	Nos		
	g) 300 mm dia	25	Nos		
7	Remove & refitment of VJ coupling including overhauling				
	a) 40 mm dia	5	Nos		
	b) 50 mm dia	5	Nos		
	c) 80 mm dia	5	Nos		
	d) 100 mm dia	5	Nos		
	e) 150 mm dia	5	Nos		
	f) 200 mm dia	5	Nos		
	g) 300 mm dia	5	Nos		
	h) 500 mm dia	5	Nos		
8	Renewal of Following				
	a) GI Plate - Thickness <= 4mm	250	Kgs		
	b) FRP coating - 6mm thick - Including surface preparation	50	Sq.M		

	c) Renewal of Mixing v/v including cost of material	5	Nos		
	d) Renewal of WashBasin including cost of material	5	Nos		
	e) Removal & laying (new or old) electric cable- Including clamping and supports)	200	RMT		
	f) MAIN ENGINE, AUX. ENGINE EXHAUST LAGGINGS & CLADDING				
	i) Renewal of lagging (50mm Thk)	40	sq.m		
	ii) Renewal of GI cladding	20	sq.m		
	g) Renewal of ventilation trunking in E/Room, P/Room, Machinery space etc.,	40	Sq.m		
9	Fumigation to be carried out on the ship, by accommodating the ship staff at suitable shore facility (Est.3 days).	1	LS		
	TOTAL GROUP - K				