Drydock Specification

DMV/2023/DD01

CONTENTS

AA	GENERAL SERVICES
BB	HULL CLEANING, BLASTING AND PAINTING
CC	CARGO TANK/HOLD REPAIRS
DD	STEEL RENEWAL
EE	BALLAST TANK REPAIRS
FF	SHIP SIDE SEA WATER VALVES, SEA CHEST AND HULL ANODES
GG	PROPELLER AND TAILSHAFT
HH	RUDDER AND PINTLES, STEERING GEAR
II	ANCHOR, CABLES, WINDLASS AND MOORING EQUIPMENT WINCH
JJ	DECK PIPING
KK	DECK FITTINGS, ACCESSES, BOLLARDS, HANDRAILS, TANK VENTS
LL	CARGO SYSTEMS
MM	CARGO CONTROL SYSTEM
NN	ACCOMMODATION
OO	BRIDGE AND NAVIGATING EQUIPMENT
PP	BRIDGE RADIO AND COMMUNICATION EQUIPMENT
QQ	INSTRUMENTATION AND CONTROL EQUIPMENT
RR	SAFETY EQUIPMENT
SS	MAIN ENGINE
TT	AUXILIARY BOILERS
UU	AUXILIARY DIESEL ENGINE
VV	ALTERNATORS AND SWITCHBOARDS,ELECTRIC MOTORS AND STARTERS
WW	AUXILIARY PUMPS
XX	AUXILIARY EQUIPMENT HEATER/COOLERS
YY	ENGINE ROOM PIPELINES
ZA	OWNER SUPPLY SHIPYARD COSTS
ZB	MODIFICATION JOBS
ZZ	ENGINE ROOM TANKS

AA : GENERAL SERVICES

AA-001 Docking / undocking

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-001-01	Shipyard Supply Costs	0.00	DAY	No

Short Description :

Dockage for the first & Last day in the dock(2 days)

Long Description :

The dock rent for the first and the last day in the yard to be quoted.
The basis of calculation of the days (Either basis 24 hours/Calender days) should be clearly specified.
Pilots/Tugs/line handlers should be specified in appropriate section .

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-001-02	Shipyard Supply Costs	0.00	DAY	No

Short Description :

Quote for the subsequent estimated days in the yard

Long Description :

The cost for the subsequent days in the dock to be quoted.
Basis for the calculation of the number of days to be clearly specified(24 hrs/calendar)

AA-002 Dock block removal and erection of temporary support

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-002-02	Shipyard Supply Costs		PCS	No

Short Description :

Remove & restore side blocks per block

Long Description :

Quote for the cost to remove of side block for examination in way of side/Bilge strake plating.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-002-03	Shipyard Supply Costs		1	No

Short Description :

Removal of the Keel Block

Long Description :

Quote for the cost to remove Keel block for examination in way of keel strake plating.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-002-04	Shipyard Supply Costs		1	No

Short Description :

Erection of Crib /Poppet for temporary support

Long Description :

Quote for temporary erection of the Crib/Poppet where required because of extensive block removals

AA-003 Wharf dues per day

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-003-01	Shipyard Supply Costs		DAY	No

Short Description :

Wharf dues /day

Long Description :

Quote for the wharfage (berth) charge as necessary to accomplish work.
Number of days based on length of stay in yard.

AA-004 Gangway

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-004-01	Shipyard Supply Costs		SET/TIME	No

Short Description :

Erecting & removing gangway

Long Description :

Gangway to be installed as required by Yard regulation/local authorities.
The gangway(s) should be rigged as close as possible to the vessel accommodation in a safe way with safety net underneath.
Gangway should be well lit during dark hours.
Passageway between shore, deck and the vessel accommodation shall be kept clear from hoses,cables or other obstructions.
Any railing removed/cut to facilitate placing of the gangway to be fitted back prior vessel departure from the yard.

AA-005 Pilotage, Tugs and Linehandlers

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-005-01	Shipyard Supply Costs		per shifting	No

Short Description :

Mooring/Unmooring at the yard-Pilot Costs.

Long Description :

Quote for below services for assisting the vessel shifting operations as may be required.

The services of a qualified pilot.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-005-02	Shipyard Supply Costs		Per Shifting	No

Short Description :

Mooring/Unmooring at the yard-Tug Costs

Long Description :

Quote for the Tugs for each shift.
If any deviation in cost due to mooring outside working hours/holidays should be clearly specified.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-005-03	Shipyard Supply Costs		Per Shifting	No

Short Description :

Mooring/Unmooring at the yard-Line Handlers Costs.

Long Description :

Quote for the Line Handlers required for each shifting.

If any deviation in cost due to mooring outside working hours/holidays should be clearly specified.

AA-006 Filling of Ballast Water

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-006-02	Shipyard Supply Costs		Per ton	No

Short Description :

Filling of ballast water

Long Description :

Ballast water to be filled as per the vessel requirement.
Estimated quantity to be filled up will be based on vessel stability requirement inside the dock.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-006-03	Shipyard Supply Costs		Per Connexion	No

Short Description :

Line connexion/disconnexion.

Long Description :

The number of times the connexion/disconnexion done will be based on the number of tanks to be filled up.
Removal/refit the vent heads to be included in the cost.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-006-04	Shipyard Supply Costs		per ton	No

Short Description :

Deballasting using yard's pump

Long Description :

Quote for providing the service of yard's pump to deballast in the dock.
This should be basis per ton of water deballasted.

AA-007 Plugs removal / refit

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-007-01	Shipyard Supply Costs		Pcs	No

Short Description :

Bottom plug unit removal/ refitting / vacuum testing

Long Description :

Plugs to be removed only if required by vessel supdt.
Allow for removal, refitting and vacuum testing/cementing.
This will be witnessed by ship's officer and plugs will be in the custody of Chief officer.
No plugs are to be removed from tanks containing fuel/lubricating oil unless specifically required and this to be carefully checked and recorded.
Vacuum testing of all the plugs to be carried out in the presence of ship officer.
After the successful completion of the vacuum test, this should be covered up with cement.

AA-008 Disposal of Water / Oily Water / sludge

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-008-01	Shipyard Supply Costs		Ton	No

Short Description :

Disposal of water

Long Description :

Quote for the disposal of water/ton which may be required to be removed from the E/R, tanks, boiler etc.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-008-02	Shipyard Supply Costs		Ton	No

Short Description :

Disposal of Oily bilge water

Long Description :

Quote for the disposal of water/ton which may be required to be removed from the E/R, Pump room tanks, boiler etc.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-008-03	Shipyard Supply Costs		Ton	No

Short Description :

Disposal of oily sludge

Long Description :

Quote for the disposal of oily sludge generated in the E/R.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-008-04	Shipyard Supply Costs		Line/ Times	No

Short Description :

Connexion/Disconnection for the disposal

Long Description :

Quote for the connexion/disconnection for the disposal using ships pumps.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-008-05	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of Oily bilge water/sludge using yard pump

Long Description :

Quote for the disposal/ton using yard pump.
This should include connection/disconnection and the transportation of the equipment.

AA-009 Electric Power afloat & in dry-dock

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-009-01	Shipyard Supply Costs		KWH	No

Short Description :

Supply of power per KWH. Allow for 3000 Kwhs/day.

Long Description :

For estimate purpose, the item prices are to be based on electricity consumption as indicated(3000 KWHs /day).
The final price will be adjusted to the actual consumption as verified by the meters reading.
The meter reading to be verified by ships electrician on each connection and disconnection.
Time of connection/disconnection to be recorded and the meter reading to be reported daily at the management/safety meeting by the yard verified by ship's electrician.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-009-02	Shipyard Supply Costs		Each time	No

Short Description :

Connection/disconnection /time.

Long Description :

The shore power requirement is while the vessel is in the dry dock however it may be required while alongside the yard berth.
Each connection/disconnection should be recorded by yard electrician and ship's electrician should be advised accordingly.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-009-03	Shipyard Supply Costs		DAY	No

Short Description :

Rental for frequency converter

Long Description :

In case of requirement of the frequency convertor, the rental charge/day should be quoted.

AA-010 Heating Lamps

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-010-01	Shipyard Supply Costs		per lamp/day	No

Short Description :

Heating lamps per lamp per day.

Long Description :

Heating lamps required on the electrical motors and generators.
Based on the ship staff requirement ,the lamps to be supplied by yard.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-010-02	Shipyard Supply Costs		set/time	No

Short Description :

Price per connection/disconnetion per lamp.

Long Description :

Quote for the installating and removing of heating lamps during the agreed period between the yard and vessel supdt.

AA-011 Temporary lighting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-011-01	Shipyard Supply Costs		Per day	No

Short Description :

Quote unit cost per lightening per day.

Long Description :

Yard to provide additional cables with lights as requested by vessel supdt to spaces as needed by vessel 's crew or owners contractor during the repair period.

Note: All temporary lightings required in the course of repair undertaken by yard to be yard's responsibility.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-011-02	Shipyard Supply Costs			No

Short Description :

Price per connection/disconnetion per light

Long Description :

Quote for the installating and removing of light during the agreed period between the yard and vessel supdt.

AA-012 Telephone service

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-012-01	Shipyard Supply Costs		line/time	No

Short Description :

Connection /Disconnection.

Long Description :

price for connection/disconnection to be quoted.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-012-02	Shipyard Supply Costs		DAY	No

Short Description :

Shore telephone (Yard's Internal Calls)

Long Description :

To provide telephones on board at Ship's office for ship to shore communication while the vessel is in the yard.
A list of all emergency and repair managers phone numbers shall be posted near the phone .

Note: No international calls should be allowed on the telephone.

AA-013 Fire watchmen

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-013-01	Shipyard Supply Costs		man/day	No

Short Description :

Fire watchmen Service

Long Description :

Furnish Fire watchman service during the entire period the vessel is undergoing repairs, while afloat at the Yard berth/pier and while the vessel is in dry dock as required by the shipyard regulations and Port authorities.

Note: When Fire Watch is required to standby while hot work is in progress, this is to be included in the price .

Indicate as per below;
a. Number of watchmen required per shift.
b. Cost per day/man
c. For calculation purpose assume 2 Fire watchman each shift.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-013-02	Shipyard Supply Costs		man/day	No

Short Description :

Security watchman service

Long Description :

Furnish Security watchman service during the entire period the vessel is undergoing repairs, while afloat at the Yard berth/pier and while the vessel is in dry dock as required by the shipyard regulations and Port authorities.

Indicate as per below;
a. Number of watchmen required per shift.
b. Cost per day/man
c. For calculation purpose assume 1 security watchman each shift.

AA-014 Fire line

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-014-01	Shipyard Supply Costs		LINE/DAY	No

Short Description :

Fire lines

Long Description :

To arrange Fire hoses to vessel on deck, pump room & Engine room during the entire period while the vessel is undergoing repairs.
Fire hoses to be kept under water pressure of 5 Bar to the 65 mm hoses.
2 separate connexions to be made. One for Engine room Fire connexion and other to main deck fire system.
Quote as per below;
a. Cost/day for each line
b. Cost for the entire period for 2 lines.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-014-02	Shipyard Supply Costs		Per Time	No

Short Description :

Fire Line connect/disconnect.

Long Description :

Quote for Line Connection/disconnection Fire hoses each time.

For estimate purposes allow for 6 connect/disconnect during the entire period.

AA-015 Cooling water for A/C plant & Provision refrigerating plant

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-015-01	Shipyard Supply Costs		Line Per Time	No

Short Description :

Cooling water Lines

Long Description :

To provide and maintain supply of cooling water at adequate pressure to ;
1. Air conditioning system
2. Domestic reefer system
3. Engine control room air conditioning system.
Pressure should be maintained between 2 to 2.5 bar.

a. Quote for unit price per line/day
b. Allow for 3 lines (3 Inlet & 3 Outlets) during the entire docking period.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-015-02	Shipyard Supply Costs		Line/Day	No

Short Description :

Cooling water lines Connection/Disconnection

Long Description :

Quote for Line Connection/disconnection Cooling water hoses each time.

For estimate purposes allow for 6 connect/disconnect during the entire period.

AA-016 Fresh Water supply

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-016-01	Shipyard Supply Costs		Ton	No

Short Description :

Fresh Water supply

Long Description :

To make necessary connection and supply fresh water to vessel's fresh water tank for domestic purpose at the request of the superintendent.

1. Quote for unit price/ton
2. Allow for supply of 500 MT for estimate purpose.

Note: Meter reading to be verified by the ship;s officer

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-016-02	Shipyard Supply Costs		Line/Time	No

Short Description :

Fresh water line Connection/disconnection/time

Long Description :

Quote for Line Connection/disconnection water hoses each time.

For estimate purposes allow for 1 connect/disconnect during the entire period.

AA-017 Compressed air

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-017-01	Shipyard Supply Costs		Line/Time	No

Short Description :

Compressed air Supply

Long Description :

Yard to provide compressed air manifolds on deck and engine room for general use and ship 's maintenance work.
Air pressure to be maintained at 7 bar.
Air supply to be provided at the specific instructions from the superintendent.

1. Cost per manifold/day
2. Allow for 2 manifold during the entire period in the yard.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-017-02	Shipyard Supply Costs		Line/Day	No

Short Description :

Price per connection/Disconnection

Long Description :

Quote for Line Connection/disconnection of manifold each time.

For estimate purposes allow for 2 connect/disconnect during the entire period.

AA-018 Crane service

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-018-01	Shipyard Supply Costs		Hour	No

Short Description :

Crane service for ship purpose

Long Description :

To provide shore crane with riggers to handle loading/unloading of vessel's stores, provisions , spares and miscellaneous equipment.
This crane use will not interfere with regular shipyard routine.

1. Quote for Unit price per hour.
2. Allow 10 hours usage for estimation purpose.

Note: A daily statement of crane hours used for ship's purpose only must be handed over to the vessel superintendent.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-018-02	Shipyard Supply Costs		Hour	No

Short Description :

Floating crane

Long Description :

Quote for the floating crane if required by the vessel.

Quote per hour basis. Only for estimation

AA-019 Garbage removal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-019-01	Shipyard Supply Costs		DAY	No

Short Description :

Garbage removal

Long Description :

Furnish Labour and material to remove household garbage from the vessel daily for health protection.
The yard has to supply a bin with cover for the garbage.
Certificate for the garbage and plastic disposal to be submitted at the end of the repair period.

Quote for the cost each time garbage removal.....
Cost for the total repair period.....

AA-020 Alleyway protection covering

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-020-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Alleyway protection covering

Long Description :

To avoid dirtying the accommodation and alleyways where the shipyard employees have to walk for access to the repair areas, all passageways, ship office, officer and crew mess rooms, cargo control room and engine control room is to be temporarily covered with cardboard paper, heavy duty polythene sheet or other suitable material.
During repair period ,any damage sheeting to be replaced accordingly.
On completion of the all repair works all coverings to be removed, disposed and areas to be cleaned up.

For estimate purposes quote for 100 Sq mtrs.

Note: Alleyways to be kept free of hoses and cables as far as possible.
Under no circumstances shall cable or hoses be led to engine room through accommodation(Fire Hazards)
No workers shall use the alleyways as a rest place and as much as possible use entrance to engine room from aft at first poop deck level.

AA-021 Main deck fresh water cleaning after work completion

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-021-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Main deck fresh water high pressure washing and cleaning after work completion

Long Description :

Prior to the vessel leaving the yard after completion of repairs, all oil stains, debris, rubbish left by the yard are to be removed from ship.

The entire deck to be fresh water high pressure blasting prior leaving docks.

Quote lump sum for the cleaning and fresh water washing of deck.

AA-024 Ventilations

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-024-01	Shipyard Supply Costs		Per day	No

Short Description :

Ventilation Fans

Long Description :

Yard to supply portable ventilation fans as required by vessel supdt for gas freeing or ventilation of cargo tanks and enclosed spaces.
Allow for fan units(With connection hoses and cables) being used during the entire repair period or as specifically required by the vessel supdt for;
a. All ballast tanks inspections.
b. Cargo and slop tanks inspections.

Yard will inform vessel supdt daily on how many fans are in use and which compartments.

1. Quote for cost per fan/day.
2. Allow 20 fans for the entire repair period for estimation purpose.

Power consumption shall be charged under "Shore Supply"

Note:
The supply of all ventilation fans in the course of repair undertaken by yard should be responsibility of yard.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-024-02	Shipyard Supply Costs		Time	No

Short Description :

Price for Connection/Disconnection

Long Description :

Quote for Connection/disconnection each time.
Connection/Disconnection should be taken as one time.

For estimate purposes allow for 20 connection /disconnection during the entire period assuming supply of 20 fans.

AA-025 Gas-free inspection

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-025-01	Shipyard Supply Costs		time/tank	No

Short Description :

Gas-free inspection Initial Visit by Government approved Chemist

Long Description :

To provide initial gas free inspection by Government approved Chemist as required by Harbour & port regulations.
Following areas to be tested;
a. All cargo tanks
b. Pump rooms.
c. Cofferdams.
d. Cargo Piping system.
e. Cargo venting system

5 Copies of the certificate are to be made available; The certificate should show the condition of each of the above spaces and must be signed by Chemist.
1. One copy to Master
2. One copy to Chief officer
3. One copy for display at top of the gangway.
4. One copy to Shipyard
5. One copy to Owners representative.

1. Quote for cost/for initial visit

Note: Giving of the certificate by the chemist and receipt by the owner's representative/master in no way relieve the repair contractor from its responsibility for full compliance with the provision of this item of Dry dock and repair specification.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-025-02	Shipyard Supply Costs			No

Short Description :

Gas Inspection & issuance of Gas free certificate for the hot work jobs

Long Description :

1. Quote cost per each visit
2. Cost for the whole repair period.

Bunker tanks containing fuel oil are to be distinctly marked by painting a white stripe across the deck indicating location of the bulkheads and stencilled;

"DANGER-OIL- NO WELDING OR BURNING"
As per MTMSM procedures, the Chief Officer will also issue Hot work / Tank entry permit and will liase directly with the yard chemist/safety officer on daily basis prior to any hot work.
The ship's plan should also to be discussed in the morning safety meeting between the yard /vessel supdt and the ship staff.

AA-026 Miscellaneous

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-02	Shipyard Supply Costs		Man Hour	No

Short Description :

Skilled labour

Long Description :

Quote for Labour cost per man/Hour
1. Normal time
2. Overtime

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-08	Shipyard Supply Costs		Per meter run	No

Short Description :

Vacuum test

Long Description :

Quote for vacuum test as per below;
1. Per location
2. Per meter run

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-09	Shipyard Supply Costs		Per m3	No

Short Description :

Air Test/Tank

Long Description :

Quote as per below;
1. Up to 300 m3
2. Up to 1000 m3

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-10	Shipyard Supply Costs			No

Short Description :

Hydro Test/Tank with Sea water

Long Description :

Quote as per below;
1. up to 1000 m3
2. Up to 5000 m3

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-11	Shipyard Supply Costs		Per Hatch	No

Short Description :

Hose Test /Hatch

Long Description :

Quote as per below;
1. Per hatch
2. Per Watertight door

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-12	Shipyard Supply Costs		Lumpsum	No

Short Description :

Main Deck Protection during Grit Blasting

Long Description :

Yard to provide/arrange for protection for Main Deck during grit blasting by applying sheet of Plastic or suitable material all around the ship railing and firmly secured in place for the duration of grit blasting.

This should be arranged free of charge by the yard so as not to disrput other jobs being done on deck and extra effort required in sweeping and removing all grit from deck and fittings subsequently and for protection of embedded grit damage to all grease points and other moving parts of the vessel access and closing devices.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-026-13	Shipyard Supply Costs		Per discharge	No

Short Description :

Blanking/plugging of overboard discharges.

Long Description :

Blanking/plugging of overboard discharges by divers using wooden plugs and quick drying cement if required for inboard repair.

Overboard line which needs to be plugged should be confirmed by CE before plugging. Plugged overboard discharges to be cleared after job is finished.
Yard to arrange for divers.

Please quote for 2", 4", 6", 8" and 10" pipes.

AA-027 Sewage Connection

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-027-02	Shipyard Supply Costs		Per Day	No

Short Description :

Provide Sewage tank for the ship's sewage collection

Long Description :

Quote Sewage Tank fees/day

AA-028 Service Charges for Outside Contractors

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-028-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Yard service charges for outside contractors based on the P.O prices

Long Description :

Yard service charges for Owners appointed service agents

AA-029 Assistance for Dock Trial

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-029-01	Shipyard Supply Costs			No

Short Description :

Assistance for dock trial

Long Description :

Additional moorings are to be put forward and aft to secure vessel during basin trial of main engine at limited RPM and other related machinery for 4 hours.
Riggers to be standby throughout trial period in case adjustments to moorings are required.

Gangway is to be temporarily lifted/removed during trial.
If yard or authorities require any additional safety precautions such as pilots, tugs, standby lines, yard has to include this in the quoted price.

1. Quote per hour basis.
2. If trial carried out outside normal working hours.
3. Cost of standby tugs for 2 hours if necessary by yard.

AA-030 Assistance for Sea Trial

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
AA-030-01	Shipyard Supply Costs			No

Short Description :

Assistance for sea trial

Long Description :

	Yard to furnish labour, necessary tools, equipment and material in order to carry out sea trials after completion of all major repairs. to the satisfaction of the ship staff and the vessel supdt. *All machinery repaired by yard to be thoroughly checked for working and make any final adjustments as found necessary.* *Yard to arrange for the work boat/transportation of all attending from vessel back to shore and shipyard.* *1. Quote for per hour basis.* *2. Allow 8 hours for estimate purposes.* *3. Allow 8 yard workers including the supervisor.* *4. Any additional cost if the sea trial has to be carried out outside normal working hours.*

BB : HULL CLEANING, BLASTING AND PAINTING

BB-001 Hull Cleaning, Blasting & Painting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-001-01	Shipyard Supply Costs			No

Short Description :

Hull Cleaning, Blasting and painting

Long Description :

Yard to provide labour, necessary tools & equipment, lighting,staging, crane usage and necessary accessories to accomplish the job.
Price shall include all necessary temporary lighting, stagings, cranage, mobile crane, protecting of external sensors e.g. echo sounder, speed log and the ICCP anodes.
The exact area to be blasted and standard of blasting shall be agreed upon between the owner's representative and shipyard after inspection and prior to starting of blasting.
On completion of blasting and prior to painting, all areas must be clean and dry.
During the pre treatment and paint application, the steel temperature and humidity to be measured 4 times daily and reported in diagram form to owner' representative.
Salt content to be measured after every fresh water wash.

BB-002 Safety precaution for blasting and painting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-002-01	Shipyard Supply Costs		Pcs	No

Short Description :

A. Scuppers

Long Description :

Provide necessary number of drain pipes reaching at least 0.5 meters outside shell plating. Connect plastic hoses to the pipes and down to the bottom of the deck.

Allow for 30 numbers for estimate purpose.

Note: This is the responsibility of the yard to ensure that the discharge from the pipes donot damage the paint due incorrect/leaky installation.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-002-02	Shipyard Supply Costs		day/line	No

Short Description :

B. All discharges from the engine room and pump room

Long Description :

All discharges from the engine room and pump room to be led through hoses down to the bottom of the dock.

Note: This is the responsibility of the yard to ensure that the discharge from the pipes donot damage the paint due incorrect/leaky installation.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-002-03	Shipyard Supply Costs		Lumpsum	No

Short Description :

C. Transmitters for echo-sounder and hull impressed current anodes to be protected

Long Description :

Transmitters for echo sounders and Hull impressed current anodes to be protected with vinyl.
Allow for Dielectric and Ref. anode to be made during emptying of drydock. It must not interfere with the cleaning procedure.

Note: Prior docking, speed sensor to be lifted inside.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-002-04	Shipyard Supply Costs		Lumpsum	No

Short Description :

D. Propeller protection

Long Description :

The propeller to be coated with fish oil or similar protection against abrasive blasting and paint.
Vessel supdt will approve protection before the blasting starts.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-002-05	Shipyard Supply Costs		m3	No

Short Description :

Grit Disposal after blasting

Long Description :

Quote for Grit Disposal after blasting (m3)

BB-003 Cleaning, blasting & painting of Hull Topside Area

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-01	Shipyard Supply Costs		M2	No

Short Description :

Chemical Cleaning of the Oil spots.

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-02	Shipyard Supply Costs		M2	No

Short Description :

High Pressure washing

Long Description :

1. Quote per sq. meter.
2. Total cost based on total Top side area. .....m2.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-03	Shipyard Supply Costs		m2	No

Short Description :

Light Sweeping SA 1.0

Long Description :

Total Topside area.....m2

1. Quote per sq. meter.
2. Allow for 10 % of the total area for light sweeping for the estimation purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-04	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA 2.0

Long Description :

Total Topside area.....m2

1. Quote per sq. meter.
2. Allow for 10 % of the total area for spot blasting for the estimation purpose..

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-05	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA 2.5

Long Description :

Total Topside area.....m2

1. Quote per sq. meter.
2. Allow for 10 % of the total area for spot blasting for the estimation purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Blowing off Air

Long Description :

Quote lumpsum price for blowing the air after completion of blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-07	Shipyard Supply Costs		m2	No

Short Description :

Touch up coat -1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-08	Shipyard Supply Costs		m2	No

Short Description :

Touch up coat-2

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-09	Shipyard Supply Costs		m2	No

Short Description :

Full Coat -1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-003-10	Shipyard Supply Costs		m2	No

Short Description :

Low pressure washing

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total cost

BB-004 Cleaning, blasting & painting of Hull Flat bottom area.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-01	Shipyard Supply Costs		m2	No

Short Description :

Chemical Cleaning of the Oil spots

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-02	Shipyard Supply Costs		m2	No

Short Description :

High Pressure Washing

Long Description :

1. Quote per sq. meter.
2. Total cost based on total Top side area. .....m2.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-03	Shipyard Supply Costs		m2	No

Short Description :

Light Sweeping SA 1.0

Long Description :

1. Quote per sq. meter.
2. Allow for 10% for total cost estimation purpose. .....m2.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-04	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA 2.0

Long Description :

1. Quote per sq. meter.
2. Allow for 10% for total cost estimation purpose. .....m2.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-05	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA 2.5

Long Description :

1. Quote per sq. meter.
2. Allow for 10% for total cost estimation purpose. .....m2.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Blowing off Air

Long Description :

Total cost as Lumpsum.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-07	Shipyard Supply Costs		m2	No

Short Description :

Touch up coat- 1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the cost estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-08	Shipyard Supply Costs		m2	No

Short Description :

Touch Up Coat-2

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the cost estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-09	Shipyard Supply Costs		m2	No

Short Description :

Full coat - 1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total cost based on total area .

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-10	Shipyard Supply Costs		m2	No

Short Description :

Full Coat- 2

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total cost based on the total area.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-004-11	Shipyard Supply Costs		m2	No

Short Description :

Low pressure fresh water wash

Long Description :

1. Quote per sq meter
2. Total cost.

BB-005 Cleaning, blasting & painting of Hull Vertical area between Load lines including rudder.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-01	Shipyard Supply Costs		m2	No

Short Description :

Chemical Cleaning of the Oil spots

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 150 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-02	Shipyard Supply Costs		m2	No

Short Description :

High Pressure wash

Long Description :

Quote for ;
1. Per Sq meter.
2. Total Cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-03	Shipyard Supply Costs		m2	No

Short Description :

Light Sweeping SA 1.0

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-04	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA2.0

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-05	Shipyard Supply Costs		m2	No

Short Description :

Spot Blasting SA 2.5

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Blowing off Air

Long Description :

Total Lumpsum cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-07	Shipyard Supply Costs		m2	No

Short Description :

Touch up coat-1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the cost estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-08	Shipyard Supply Costs		m2	No

Short Description :

Touch up coat-2

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 10% of the area for the cost estimation purpose

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-09	Shipyard Supply Costs		m2	No

Short Description :

Full Coat-1

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total Cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-10	Shipyard Supply Costs		m2	No

Short Description :

Full Coat-2

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Total Cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-005-11	Shipyard Supply Costs		m2	No

Short Description :

Low Pressure fresh water wash

Long Description :

1. Quote per sq. meter.
2. Total Cost

BB-006 Hull Markings

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-006-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Painting of Hull markings

Long Description :

Quote Lumpsum price.
The price should include staging, Cherry pickers required for the job.

BB-012 Capac System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-012-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Capac system

Long Description :

Quote for repairing of renewal of electrodes.
The cost should include staging,cherry picker,temporary lights, necessary tools and equipment.

BB-013 Additional costs for Silicon paint application

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-013-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Garnet application for surface and silicon paint application

Long Description :

For propeller.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-013-02	Shipyard Supply Costs		lumpsum	No

Short Description :

Masking of hull with plastic.

Long Description :

Masking of hull with plastic and full washing of the deck surface

BB-015 Main Deck Blasting and Painting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-01	Shipyard Supply Costs		per m2	No

Short Description :

Main Deck forward part from break of forecastle deck to hatch cover #3
TOTAl AREA: 2000 m2

Long Description :

Main deck including all structures from break of fore castle deck to hatch cover #3 to be spot blasted and painted (3 T/U + 1 F/C).

Allow for 50% area spot blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-02	Shipyard Supply Costs		per m2	No

Short Description :

Main Deck aft part from hatch cover #4 to Break of accomodation
TOTAl AREA: 1500 m2

Long Description :

Main deck including all structures from hatch cover #4 to break of accomadation be spot blasted and painted (3 T/U + 1 F/C).

Allow for 50% area spot blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-03	Shipyard Supply Costs		per m2	No

Short Description :

All hatch cover top and coaming area paint coating maintenance.
TOTAl AREA: 10,000 m2

Long Description :

All hatch cover top and hatch coaming areas to be spot blasted and painted (3 T/U + 1 F/C).

Allow for 50% area spot blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-04	Shipyard Supply Costs		per m2	No

Short Description :

Cargo Cranes Paint coating maintenance Total Area = 1320 m2

Long Description :

Spot blasting and painting of cargo crane structure (3 T/U + 1 F/C).

Allow for 25% spot blasting.

Pls include staging cost.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-05	Shipyard Supply Costs		2029	No

Short Description :

A1 (Centre line - Aft manifold - Port Bulwark, Forecastle)

Long Description :

It includes as below
Deck plating - 823 m2
Big transverse beam with stiffeners (16nos.) - 545 m2
Small transverse beam (12nos.) - 219 M2
Centre line Longitudinal beams - 21 M2
Longitudinal beams (12 nos.) - 420 m2

Total area - 2029 m2

Surface preparation -
1. To high pressure fresh water wash on entire weather deck area. Remove oily and greasy surface are to clean by using water soluble detergent then re wash with fresh water sufficiently
2. Corroded/defected areas to spot repair to minimum grade Sa2 OR manual scraping and wire brushing - machine brushing - disc grinding to St-3.
3. Use hydrojetting to remove all existing coating till Sa2.o (Min 700 bars).
4. To Ensure all loosed paint film edges are rounded up and tirmmed to a smooth edge. Painting should be carried out on dry and clean surface.
5. RH during painting should not exceed 85% and steel surface temperature should read 3 deg higher than dew point temperature.

Main deck to be blasted and painted (3 T/U + 1 F/C).

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-06	Shipyard Supply Costs		2029	No

Short Description :

A2 (Centre line - Aft manifold - Starboard bulwark, Forecastle)

Long Description :

It includes as below
Deck plating - 823 m2
Big transverse beam with stiffeners - 545 m2
Small transverse beam (12nos.) - 219 M2
Centre line Longitudinal beams - 21 M2
Longitudinal beams (12 nos.) - 420 m2

Total area - 2029 m2

Surface preparation -
1. To high pressure fresh water wash on entire weather deck area. Remove oily and greasy surface are to clean by using water soluble detergent then re wash with fresh water sufficiently
2. Corroded/defected areas to spot repair to minimum grade Sa2 OR manual scraping and wire brushing - machine brushing - disc grinding to St-3.
3. Use hydrojetting to remove all existing coating till Sa2.o (Min 700 bars).
4. To Ensure all loosed paint film edges are rounded up and tirmmed to a smooth edge. Painting should be carried out on dry and clean surface.
5. RH during painting should not exceed 85% and steel surface temperature should read 3 deg higher than dew point temperature.

Main deck to be blasted and painted (3 T/U + 1 F/C).

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-07	Shipyard Supply Costs		1064	No

Short Description :

A3 (Center Line - Aft manifold-Port Bulwark, Accommodation)

Long Description :

It includes as below
Deck plating - 420 m2
Big transverse beam with stiffeners (9nos.)- 306 m2
Small transverse beam (6 nos.) - 109 m2
Centre line Longitudinal beams - 11 M2
Longitudinal beams (12 nos.) - 216 m2

Total area - 1064 m2

Surface preparation -
1. To high pressure fresh water wash on entire weather deck area. Remove oily and greasy surface are to clean by using water soluble detergent then re wash with fresh water sufficiently
2. Corroded/defected areas to spot repair to minimum grade Sa2 OR manual scraping and wire brushing - machine brushing - disc grinding to St-3.
3. Use hydrojetting to remove all existing coating till Sa2.o (Min 700 bars).
4. To Ensure all loosed paint film edges are rounded up and tirmmed to a smooth edge. Painting should be carried out on dry and clean surface.
5. RH during painting should not exceed 85% and steel surface temperature should read 3 deg higher than dew point temperature.

Main deck to be blasted and painted (3 T/U + 1 F/C).

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-08	Shipyard Supply Costs		1064	No

Short Description :

A4 (Centre line - Aft Manifold - Starboard Bulwark, Accommodation)

Long Description :

It includes as below
Deck plating - 420 m2
Big transverse beam with stiffeners (9nos.)- 306 m2
Small transverse beam (6 nos.) - 109 m2
Centre line Longitudinal beams - 11 M2
Longitudinal beams (12 nos.) - 216 m2

Total area - 1064 m2

Surface preparation -
1. To high pressure fresh water wash on entire weather deck area. Remove oily and greasy surface are to clean by using water soluble detergent then re wash with fresh water sufficiently
2. Corroded/defected areas to spot repair to minimum grade Sa2 OR manual scraping and wire brushing - machine brushing - disc grinding to St-3.
3. Use hydrojetting to remove all existing coating till Sa2.o (Min 700 bars).
4. To Ensure all loosed paint film edges are rounded up and tirmmed to a smooth edge. Painting should be carried out on dry and clean surface.
5. RH during painting should not exceed 85% and steel surface temperature should read 3 deg higher than dew point temperature.

Main deck to be blasted and painted (3 T/U + 1 F/C).

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-09	Shipyard Supply Costs		70	No

Short Description :

A5 Catwalk (Forecastle - Aft Manifold)

Long Description :

Catwalk - 70 m2

Catwalk to be spot blasted and painted (3 T/U + 1 F/C).

Allow for 50% area spot blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-015-10	Shipyard Supply Costs		36	No

Short Description :

A6 Catwalk (Aft Manifold - Accommodation)

Long Description :

Catwalk - 36 m2

Catwalk to be spot blasted and painted (3 T/U + 1 F/C).

Allow for 50% area spot blasting.

BB-017 Boot Top Area

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-01	Shipyard Supply Costs		sq.mtr	No

Short Description :

Chemical Cleaning of Oil Spots

Long Description :

Quote for ;
1. Per Sq meter.
2. Allow for 300 Sq meter for estimate purpose.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-02	Shipyard Supply Costs		sq.mtr	No

Short Description :

High Pressure Washing @ 3000 psi (210 bar)

Long Description :

1. Quote per sq. meter.
2. Total cost based on total Boot Top area. (400 m2)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-03	Shipyard Supply Costs		sq.mtr	No

Short Description :

Spot SA1/ Power tooling for paint repair.(Intercept 7000 RED)

Long Description :

Boot Top Area.....400.....m2

estimated area: 100 square meters.

The mechanically damaged area should be power tooled light wire brush / Needled scalar should be used. The power tooling areas to be squared off.

The grit blasting should be fully avoided as the paint is silicone pain.

yard to quote for labor, material, power tooling, staging, lighting, ventilation for the job

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-04	Shipyard Supply Costs		sq.mtr	No

Short Description :

Touch up coat -1 (Intershield 300 Aluminum). 1st Primer

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 15% of the area for the estimation purpose

First touch-up coat of primer at 125 microns DFT (Intershield 300 Aluminum). Airless Spray

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-05	Shipyard Supply Costs		sq.mtr	No

Short Description :

Touch up coat -2 (Intershield 300 Bronze). 2nd Primer

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 15% of the area for the estimation purpose

First touch-up coat of primer at 125 microns DFT (Intershield 300 Aluminum). Airless Spray

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-06	Shipyard Supply Costs		sq.mtr	No

Short Description :

Touch up coat-2 (Intergard 263 Light Grey). 3nd Primer

Long Description :

1. Quote for the Touch up coat per sq. meter.
2. Allow for 15% of the area for the estimation purpose

One full coat of primer anti-corrosive at 75 microns DFT to the damaged areas. (Intergard 263 Light Grey). Airless Spray

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-07	Shipyard Supply Costs		sq.mtr	No

Short Description :

T/U Affected areas and Power tooled areas with Intercept 7000 (RED)

Long Description :

Yard to quote for T/U with 150 DFT airless spray for the affected areas in Boot Top which has been power tooled and made ready.

Entire Hull flats and vertical sides is Silicone Paint so yard to apoply A/F only to the affected areas treated

Allow 15 % of the total area of Boot Top

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-08	Shipyard Supply Costs		lump sum	No

Short Description :

Blowing Off Air

Long Description :

Quote Lumpsome air blow incase of blasting is done

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-017-09	Shipyard Supply Costs		sq.mtr	No

Short Description :

Hydrojetting at 30,000 PSI

Long Description :

estimated area: 125 square meters.

The mechanically damaged area to be hydro-jetted and squared off. Edges preparation to be done accordingly.

The grit blasting should be fully avoided as the paint is silicone pain.

yard to quote for labor, material, hydro-jetting/sq.mtr, staging, lighting, ventilation for the job

Decision to carry out hydro-jetting or Mechanical De-scaling of the boot top will be taken by owners

BB-018 Blasting/Cleaning and Painting of Main Deck Frames

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-018-01	Shipyard Supply Costs		sq.mtr	No

Short Description :

Main Deck P & S manifold across pipes/brackets

Long Description :

Yard to quote for the following:

1. Removal of chemical drums from manifold area (Around xxx drums)

2. Removal of all gratings 200 pcs (Dimension: xxx cm x xxx cm)

3. To carry out spot hydro-jetting (estimated 40%) @ 30,000 psi on the P & S from frames xxx-xxx(include under manifold areas), supports and pipes across

4. Apply 3 X T/U + 1 X Stripe Coat and 2X F/C for all frames, supports, pipelines and brackets in frames. Paints Owners Supply. Paint to be applied by spray only

3. Staging, ventilation, lighting, labor, hot work for the job.

4. Steel renewal, if any, comes after hydro-jetting is extra

Steel work if generates out of this job will be quoted extra

Estimated xxxx sq.mtr

BB-019

Underbridge wings on both port and stbd side to derust and paint.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
BB-019-01	Shipyard Supply Costs		sq.mtr	No

Short Description :

Under bridge wings on both port & stbd side to derust & paint

Long Description :

Underbridge wing area on both port & stbd side to be derusted and painted as per below;
1. 3 X Primer coats
2. 2 X Finished coats.

Allow for staging cost, cherry picker, cranage, ventilation, tools and equipment required.

total under bridge area: about XX sq.mtr

CC : CARGO TANK/HOLD REPAIRS

CC-001 Cargo Tanks (Stainless Steel)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-001-01	Shipyard Supply Costs		Per location	No

Short Description :

Random Dye pen checks of stainless steel cargo tanks

Long Description :

1. Quote per location
2. Allow 100 locations plus the report for total cost estimation.

Note: 1.Price to include the staging /cherry picker and access lighting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-001-02	Shipyard Supply Costs		Per Meter run	No

Short Description :

Grinding and re welding of Cargo tanks weld seams

Long Description :

Quote for per meter run of the welding seam.

Note:
1. The welding should be done as per the class approved procedures.
2. The weld repair to include proper grinding to remove the fracture and to be confirmed by the class and vessel supdt.
3. Use of welding rods to be as per the material requirement for SS316 L/LN or SS304L/LN.
4. Appropriate to the material, the tools like grinding discs and wire brush to be used.
5. Welder to be class approved for the Clad steel and certificate to be submitted to the vessel supdt .
6. Allow for how work permit required to carry out the above job.

CC-002 Cargo Holds (Bulk / Container vessels)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-01	Shipyard Supply Costs		per m2	No

Short Description :

HP WASH AND CHEMICAL CLEANING PRIOR GRIT BLASTING

Long Description :

SHIPYARD TO QUOATE FOR FOLLOWING;
1) CHEMICAL CLEANING OF CARGO HOLDS STAINS (ALLOW FOR 10%) AREA.
2) HP WASH OF ALL CARGO HOLDS
3) DISPOSAL OF WASH WATER.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-02	Shipyard Supply Costs		m2	No

Short Description :

SPOT BLASTING TO SA 1.0 STANDARD

Long Description :

To quote for spot blasting to SA 1.0 standard for all parts of the cargo hold upto upper parts of coaming and underside of the hatch covers.
1. quote for per meter square.
2. Allow for 10% area.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-03	Shipyard Supply Costs		m2	No

Short Description :

SPOT BLASTING TO SA2.0 STANDARD

Long Description :

To quote for spot blasting to SA 2.0 standard for all parts of the cargo hold upto upper parts of coaming and underside of the hatch covers.
1. quote for per meter square.
2. Allow for 40% area.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-04	Shipyard Supply Costs		m2	No

Short Description :

FRESH WATER RINSE AFTER GRIT BLASTING

Long Description :

To quote for per square meter fresh water rinse after grit blasting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-05	Shipyard Supply Costs			No

Short Description :

PAINT APPLICATION PRIMER T/U COAT.

Long Description :

To quote for per square meter T/U coat.
1. Allow for 100 micron DFT

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-06	Shipyard Supply Costs			No

Short Description :

PAINT APPLICATION FULL COAT

Long Description :

To quote for per square meter full coat.
1. Allow for 100 micron DFT

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-07	Shipyard Supply Costs		per hour	No

Short Description :

Cherry Picker

Long Description :

Cherry picker for blasting and painting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-002-08	Shipyard Supply Costs		per meter	No

Short Description :

Cargo Hold Paint Stripe coat

Long Description :

To carry out stripe coating for weld seams & frames

CC-003 Cargo tanks(coated)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-003-01	Shipyard Supply Costs		Per location	No

Short Description :

Random Dye pen checks of coated cargo tanks

Long Description :

1. Quote per location
2. Allow 100 locations plus the report for total cost estimation.

Note: 1.Price to include the staging /cherry picker and access lighting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-003-02	Shipyard Supply Costs		per meter run	No

Short Description :

Grinding and re welding of Cargo tanks weld seams

Long Description :

Quote for per meter run of the welding seam.

Note:
1. The welding should be done as per the class approved procedures.
2. The weld repair to include proper grinding to remove the fracture and to be confirmed by the class and vessel supdt.
3. Use of welding rods to be as per the material requirement for SS316 L/LN or SS304L/LN.
4. Appropriate to the material, the tools like grinding discs and wire brush to be used.
5. Welder to be class approved for the Clad steel and certificate to be submitted to the vessel supdt .
6. Allow for how work permit required to carry out the above job.

CC-004 Cargo Hold Access Ladder

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-004-01	Shipyard Supply Costs			No

Short Description :

No-1 Cargo Hold Access Ladder Railing Fabrication

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-004-02	Shipyard Supply Costs			No

Short Description :

No.2 Cargo Hold Access Ladder Repair

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-004-03	Shipyard Supply Costs			No

Short Description :

No.3 Cargo Hold Access Ladder repair

CC-005 Hatch Cover compression bar

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-005-01	Shipyard Supply Costs			No

Short Description :

No.1 Cargo hold Hatch cover compression bar renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-005-02	Shipyard Supply Costs			No

Short Description :

No.2 Cargo hold Hatch cover compression bar renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-005-03	Shipyard Supply Costs			No

Short Description :

No.3 Cargo hold Hatch cover compression bar renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-005-04	Shipyard Supply Costs			No

Short Description :

No.4 Cargo hold Hatch cover compression bar renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-005-05	Shipyard Supply Costs			No

Short Description :

No.5 Cargo hold Hatch cover compression bar renewal

CC-006 Hatch covers

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-006-01	Shipyard Supply Costs			No

Short Description :

Hatch cover repair

CC-007 Booby Hatches

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
CC-007-01	Shipyard Supply Costs			No

Short Description :

Booby hatches repair

DD : STEEL RENEWAL

DD-001 Steel Plates Renewals

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-001-01	Shipyard Supply Costs		Per Kilogram	No

Short Description :

Steel plates renewal on main deck / hull

Long Description :

Quote per Kg cost for the plates renewal

Note:
1. Allow for the access lighting and staging.
2. The welding procedures and material to be class approved.
3. Certificate of material to be submitted to the class.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-001-02	Shipyard Supply Costs		Per Kilogram	No

Short Description :

Stainless Steel Claded steel plate renewal

Long Description :

Quote /Kilogram of the stainless steel plate renewal on deck

The cost should include;
Note:
1. The welding should be done as per the class approved procedures.
2. The weld repair to include proper grinding to remove the fracture and to be confirmed by the class and vessel supdt.
3. Use of welding rods to be as per the material requirement for SS316 L/LN or SS304L/LN.
4. Appropriate to the material, the tools like grinding discs and wire brush to be used.
5. Welder to be class approved for the Clad steel and certificate to be submitted to the vessel supdt .
6. Allow for access lighting and staging.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-001-03	Shipyard Supply Costs		Per Kilogram	No

Short Description :

Renewal of 316L/LN plates in internal cargo tanks construction.

Long Description :

Quote /Kilogram of the stainless steel plate renewal inside the tank.

The cost should include;
Note:
1. The welding should be done as per the class approved procedures.
2. The weld repair to include proper grinding to remove the fracture and to be confirmed by the class and vessel supdt.
3. Use of welding rods to be as per the material requirement for SS316 L/LN or SS304L/LN.
4. Appropriate to the material, the tools like grinding discs and wire brush to be used.
5. Welder to be class approved for the Clad steel and certificate to be submitted to the vessel supdt .
6. Allow for access lighting and staging.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-001-04	Shipyard Supply Costs		Per Kilogram	No

Short Description :

Steel Plate renewal in ballast tanks.

Long Description :

Quote per Kg cost for the steel renewal.

Note:
1. Allow for the access lighting and staging.
2. The welding procedures and material to be class approved.
3. Certificate of material to be submitted to the class.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-001-06	Shipyard Supply Costs			No

Short Description :

Steel plate renewal in cargo holds (bulk / container vessels)

Long Description :

Quote per Kg cost for the steel renewal.
1. for stiffeners
2. for tank top
3. for cell guides

Note:
1. Allow for the access lighting and staging.
2. The welding procedures and material to be class approved.
3. Certificate of material to be submitted to the class.

DD-002 Thickness guaging

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-002-01	Shipyard Supply Costs		each	No

Short Description :

Thickness gauging

Long Description :

Yard to arrange for class approved thickness gauging company to carry out thickness gauging for hull plates , deck plates & ballast tanks internals.

Note:
1. Allow for the access lighting, ventilation and staging.

DD-005 Cargo tanks pitting on tank top

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
DD-005-01	Shipyard Supply Costs		Per spot	No

Short Description :

Cargo tanks top pitting repair

Long Description :

The cost should include;
Note:
1. The welding should be done as per the class approved procedures.
2. The weld repair to include proper grinding to remove the fracture and to be confirmed by the class and vessel supdt.
3. Use of welding rods to be as per the material requirement for SS316 L/LN or SS304L/LN.
4. Appropriate to the material, the tools like grinding discs and wire brush to be used.
5. Welder to be class approved for the Clad steel and certificate to be submitted to the vessel supdt .
6. Allow for access lighting and staging.

EE : BALLAST TANK REPAIRS

EE-001 Ballast Tanks

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-001-01	Shipyard Supply Costs		Per ton	No

Short Description :

Removal of mud and corrosion scales

Long Description :

Quote for mud/ tonne disposed.

Note:
1. Ballast tanks to be opened and drained, ventilation and essential safety services to be provided.
2. Ballast tanks to be inspected and mud inside to be disposed off.
3. Provide access lighting & required staging.
4. Enclosed space entry permit to be provided.
5. Equipment and tools required to be provided.
6. Arrangement to dispose off from ship to shore to be included.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-001-02	Shipyard Supply Costs		Per Pc	No

Short Description :

Installation of Anodes

Long Description :

Quote for per anode installation.

Note:
1. Ballast tanks to be opened and drained, ventilation and essential safety services to be provided.
2. Provide access lighting & required staging.
3. Enclosed space entry permit /Hot work permit to be provided.
4. Equipment and tools required to be provided.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-001-03	Shipyard Supply Costs		Per Line/Valve	No

Short Description :

Pressure testing of Ballast tank lines and valves

Long Description :

Double bottom ballast tank pipelines/Valves are to be pressure tested to 5 bar.
Provide;
1. Safe access lighting.
2. ventilation inside the tanks.
3. Staging if required.
4. All safety precautions as required including the enclosed space entry permit and safety watch.
5. Provide required tools and equipment as required for accomplishing the job.

Quote;
1. Per line & per Valve.
2. For estimation purpose allow for 6 lines and 6 valves.

Note: The ballast tank access cover to be removed ashore and

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-001-04	Shipyard Supply Costs			No

Short Description :

Ballast tank paint coating

Long Description :

All Ballast tanks coating up-gradation as per CAP requirement. Yard to quote for the below 2 options

OPTION 1:

Yard to quote for:

1. labor for ballast tank up-gradation
2. Stagings as per required
3. HP Washing of the residues from the Ballast tanks with 200 Bar pressure.
3. Hydro jetting of the frames required for up-gradation with 1000 bar water pressure
4. Manual chipping of the frames
5. Application of paint (2 X T/U , 1 X F/C)

OPTION 2:

Yard to quote for:

1. labor for ballast tank up-gradation
2. Stagings as per required
3. HP Washing of the residues from the Ballast tanks with 200 Bar pressure.
3. Sand Blasting of the tank frames
4. Use of Humidifier
5. Manual chipping of the frames
6. Cleaning of the sand blasted areas
5. Application of paint (2 X T/U , 1 X F/C)

Area for up-gradation tank wise is to be done as per the specified SOR attached

All paints supplied by Owners. Yard to quote for application only

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-001-05	Shipyard Supply Costs		per meter	No

Short Description :

Ballast tank paint stripe coat

Long Description :

To carry out stripe coat on weld seams and frames.

EE-004 Ballast tank & Bilge valve stool space Lighting & ventilation

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-004-01	Shipyard Supply Costs			No

Short Description :

Ballast Tank and Bilge valve stool space lighting and ventilation.

EE-005 Ballast water tank sounding Pipe/Cap renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-005-01	Shipyard Supply Costs		Pcs	No

Short Description :

Ballast water tank sounding pipe/cap repair.

Pipe size; DN 40.
Material: galvanized steel pipe.
Length: 150mm.
Thread pitch: 1.25mm.
Qty: 5 pcs.

Long Description :

The corroded part of the sounding pipe top to be cropped and renewed, along with new sounding cap.

EE-006 No.1 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-006-01	Shipyard Supply Costs		1	No

Short Description :

No.1 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.1 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-007 No.1 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-007-01	Shipyard Supply Costs		1	No

Short Description :

No.1 WBTK (S) Ballast tank steel renewal for CAP Survey

Long Description :

No.1 WBTK (S) Ballast tank steel renewal for CAP Survey

EE-008 No.2 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-008-01	Shipyard Supply Costs		1	No

Short Description :

No.2 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.2 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-009 No.2 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-009-01	Shipyard Supply Costs		1	No

Short Description :

No.2 WBTK (S) Ballast tank steel renewal for CAP Survey

Long Description :

No.2 WBTK (S) Ballast tank steel renewal for CAP Survey

EE-010 No.3 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-010-01	Shipyard Supply Costs		1	No

Short Description :

No.3 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.3 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-011 No.3 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-011-01	Shipyard Supply Costs		1	No

Short Description :

No.3 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.3 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-012 SIDE WATER BALLAST TANK 3P STEEL RENEWAL FOR CAP SURVEY

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-012-01	Shipyard Supply Costs		1	No

Short Description :

SIDE WATER BALLAST TANK 3P STEEL RENEWAL FOR CAP SURVEY

Long Description :

SIDE WATER BALLAST TANK 3P STEEL RENEWAL FOR CAP SURVEY

EE-013 SIDE WATER BALLAST TANK 3S STEEL RENEWAL FOR CAP SURVEY

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-013-01	Shipyard Supply Costs		1	No

Short Description :

SIDE WATER BALLAST TANK 3S STEEL RENEWAL FOR CAP SURVEY

Long Description :

SIDE WATER BALLAST TANK 3S STEEL RENEWAL FOR CAP SURVEY

EE-014 No.4 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-014-01	Shipyard Supply Costs		1	No

Short Description :

No.4 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.4 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-015 No.4 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-015-01	Shipyard Supply Costs		1	No

Short Description :

No.4 WBTK (S) Ballast tank steel renewal for CAP Survey

Long Description :

No.4 WBTK (S) Ballast tank steel renewal for CAP Survey

EE-016 SIDE WATER BALLAST TANK 4P STEEL RENEWAL FOR CAP SURVEY

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-016-01	Shipyard Supply Costs		1	No

Short Description :

SIDE WATER BALLAST TANK 4P STEEL RENEWAL FOR CAP SURVEY

Long Description :

SIDE WATER BALLAST TANK 4P STEEL RENEWAL FOR CAP SURVEY

EE-017 SIDE WATER BALLAST TANK 4S STEEL RENEWAL FOR CAP SURVEY

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-017-01	Shipyard Supply Costs		1	No

Short Description :

SIDE WATER BALLAST TANK 4S STEEL RENEWAL FOR CAP SURVEY

Long Description :

SIDE WATER BALLAST TANK 4S STEEL RENEWAL FOR CAP SURVEY

EE-018 No.5 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-018-01	Shipyard Supply Costs		1	No

Short Description :

No.5 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.5 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-019 No.5 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-019-01	Shipyard Supply Costs		1	No

Short Description :

No.5 WBTK (S) Ballast tank steel renewal for CAP Survey

Long Description :

No.5 WBTK (S) Ballast tank steel renewal for CAP Survey

EE-020 No.6 WBTK (P) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-020-01	Shipyard Supply Costs		1	No

Short Description :

No.6 WBTK (P) Ballast tank steel renewal for CAP Survey

Long Description :

No.6 WBTK (P) Ballast tank steel renewal for CAP Survey

EE-021 No.6 WBTK (S) Ballast tank steel renewal for CAP Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
EE-021-01	Shipyard Supply Costs		1	No

Short Description :

No.6 WBTK (S) Ballast tank steel renewal for CAP Survey

Long Description :

No.6 WBTK (S) Ballast tank steel renewal for CAP Survey

FF : SHIP SIDE SEA WATER VALVES, SEA CHEST AND HULL ANODES

FF-001

Shipside Valves, Sea Chests and Hull Anodes

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-01	Shipyard Supply Costs		Per Valve	No

Short Description :

Ship Side valves overhaul

Long Description :

Quote for the overhaul of the below mentioned valves.
1. Machinery Space
2. Pump Room
3. In Forecastle store/Fore Peak/Fwd cofferdam.
Prior opening, the required valves to be confirmed by ship staff and marked by yard.

Sea suction and overboard discharge valves to be opened up, cleaned, overhauled.
Interior of the valve housing to be coated with apexior paint before assembling.
Supdt/Chief Engineer to check and confirm before coating.

1. Quote/valve.
2. Total cost for all the valves.
This should include renewal of joints, packings, nuts and bolts.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-02	Shipyard Supply Costs		Per set	No

Short Description :

Sea Chests & Gratings.

Long Description :

1. Quote / set of sea chest / Grating/zinc anodes
2. Total cost based on below information

Yard to provide labour, necessary tools and material to accomplish the following works.
Access staging , lighting and ventilation to include in the cost
Following sea chest gratings to be removed. Gratings and interior of sea chests to be thorougly scraped, cleaned and hosed down with high pressure fresh water. Rusty areas in the sea chest to be grit blasted. Sea chests and gratings then to be painted.

Quotation should include erecting and dismantling of necessary staging required for the job.

Location	*Type*	*Dimension*	*Number of sets*
i High Sea Chest	.....		.....
ii Low Sea Chest	.....		.....
iii Ballast Sea Chest	.....		.....
iv Emergency Fire Pump	.....		.....
v Pumproom sea chest	.....		.....

Allowed for a total of(..... pcs) zinc anodes to be renewed.
Yard to crop off and renew anodes.
Size: .....(.....Kg each) - Bolted/Welded
All anodes yard to supply.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Hull Anodes Renewal

Long Description :

Total number of anodes to renew.....
Size of the anodes.....
Rubber gaskets to renew.....
Renew bolts in case bolted type.....(Bolts to be yard supply)
Bolts specs to be provided: Stainless steel
Remove old /damaged bolts and weld the new bolts.
For Welded type: To remove /clean the old weld and install new anodes by welding.

1. Quote /Piece renewal of the anodes.
2. Total cost based on the total numbers renewed.

Note:
1. The quote should include removal of existing bolts and disposal of old anodes.
2. Allow for the access staging, lighting, labour, material, equipment, cranage, Cherry Picker and necessary accessory works.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-04	Shipyard Supply Costs		Per Pcs	No

Short Description :

Scupper Overboard Valve

Long Description :

Following scupper valves to be opened up, cleaned and overhauled to the satisfaction of the Vessel supdt/Chief Engineer.
The valve housing interiors to be coated with apexior paint.
The cost should include the renewal of joints, gaskets, bolts and nuts.

List of valves to be provided.
1.
2.
3.
4.

1. Quote per valve
2. Total cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-05	Shipyard Supply Costs		Per Pcs	No

Short Description :

Intermediate Sea Water Valves

Long Description :

Following Internal/Intermediate sea valves to be opened up, cleaned and overhauled to the satisfaction of the Vessel supdt/Chief Engineer.
The valve housing interiors to be coated with apexior paint.
The cost should include the renewal of joints, gaskets, bolts and nuts.
Allow for transportation cost to ashore if reqd .

List of valves to be provided.
1.
2.
3.
4.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
FF-001-07	Shipyard Supply Costs		Lump sum	No

Short Description :

Annex II overboard pipe inspection and repair

	Long Description : *Following jobs to be done on Annex II pipe;* *1) Annex II overboard pipe stub piece thickness gauging and renewal if required stub piece is Mild steel schedule 180.* *2) Annex II pipe stub piece weld seam inspection, gouging and re-welding if required, in order to check hull plate weld seam the deflector need removal. (welded or bolted type)* *3) Shell plate and deflector piece inspection and renewal if required.* *4) NDT testing of the weld seam after completion of repair both inboard and on external hull plate weld seam.* *Include access and staging on external hull.*

GG : PROPELLER AND TAILSHAFT

GG-001 Tasks of Propeller

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-001-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

To Clean and Polish the propeller Blades

Long Description :

To furnish labour, materials, equipment, staging, cranage and provide necessary accessory works to accomplish the following works:-
To clean and polish the propeller blades to a fine finish of 4 microns.
To coat with fish oil.
The propeller to be protected during grit blasting and etc until the vessel is ready to re-float.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-001-02	Shipyard Supply Costs		sq sm	No

Short Description :

Propeller blades repairs

Long Description :

Quote for blade repairs with filling the pits belzona.

Quote to be per sq.cm

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-001-03	Shipyard Supply Costs			No

Short Description :

Carry out Dye pen test of hub and blade tips

Long Description :

After the polishing of the propeller, the dye pen test of the hub and blade tips should be carried out.
This should be checked and confirmed by the vessel supdt.

GG-002 Propeller shaft Wear down

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-002-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Propeller shaft wear down measurement.

Long Description :

Provide labour material, equipment, tools, staging, access lighting, cranage, cherry picker and necessary accessory work to carry out the below job;
1. As soon as the vessel is dry,rig staging, remove rope guard and tailshaft wear down readings to be taken.
2. Record the readings and report to the owners.
3. The Wear down gauge will be ship supply.
4. Upon completion,marine growth in way to be removed,areas to be cleaned and painted(Including rope guards), rope guards to be installed in good order and remove staging.
5. Inner seals are to be charged with fresh oil and plugs secured. This is to be witnessed by Chief Engineer and supdt.

GG-003 Intermediate Shaft Bearing

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-003-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

intermediate shaft bearing survey

Long Description :

Removal of top cover to facilitate the inspection by class and owners' representative .
Unit to be boxed back after survey by class and owners.
Bearing clearances are to be recorded before and after survey.
Bearing loading is to be checked and confirmed prior and after inspection, results are to be presented to class as required.

GG-004 Sterntube Sealing (Oil Lubricated)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Withdrawl of Propeller, Tailshaft /Intermediate shaft

Long Description :

Price to include all necessary removal /reinstallation of propeller and staging for access, include all removals in the engine room floor plates pipe work etc.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Temperature sensors to be checked and calliberated.

Long Description :

While the tail end shaft is out, the temperature sensors to be checked and calliberated.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-04	Shipyard Supply Costs		Per set	No

Short Description :

Chrome Liner Skimming

Long Description :

Quote for the skimming of chrome liners.
There are total two sets of chrome liners.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-05	Shipyard Supply Costs		Per time	No

Short Description :

Propeller shaft taper end magna flux test

Long Description :

Quote for the magna flux test of the taper end of the propeller shaft.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-06	Shipyard Supply Costs		Per time	No

Short Description :

Load test of Intermediate shaft bearings

Long Description :

Quote for the load test of the intermediate shaft bearings

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-004-07	Shipyard Supply Costs		Lumpsum	No

Short Description :

Propeller hub to be filled up with Tallow

Long Description :

Quote for the filling up of the tallow in the propeller hub

GG-005 Sterntube Sealing (Water Lubricated)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-005-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Withdrawal of the Propeller /Tail shaft/Intermediate shaft

Long Description :

Price to include all necessary removal /reinstallation of propeller and staging for access, include all removals in the engine room floor plates pipe work etc

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-005-02	Shipyard Supply Costs		Per set	No

Short Description :

Supply of one complete set of the Viton seals.

Long Description :

Yard to advise the cost to supply one complete set Viton seals for forward and aft stern tube assembly .

Type :

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-005-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Checking and Calibration of the temperature sensors

Long Description :

Quote for the two temperature sensor is to be checked and calibrated type if fitted (…….)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-005-04	Shipyard Supply Costs		Per time	No

Short Description :

Magnaflux test on the taper area

Long Description :

Quote for the magnaflux test of the taper area.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-005-05	Shipyard Supply Costs		Per Pc	No

Short Description :

Low flow sea water alarm to be checked

Long Description :

Quote for checking of the alarm and repairing of the alarm on case to case basis.

GG-008 Rope guard removal & Refit

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
GG-008-01	Shipyard Supply Costs		lump sum	No

Short Description :

Rope guard removal & refit

Long Description :

Yard to quote for removal (cutting) and refitting (welding) of the rope guard.

HH : RUDDER AND PINTLES, STEERING GEAR

HH-001 Tasks for Rudder & Pintles

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
HH-001-01	Shipyard Supply Costs		Per Time	No

Short Description :

Measure & Record Pintle Clearances.

Long Description :

Quote price :
1. Measure upper and lower pintle clearances.
2. Lifting up rudder and inspect rudder clearance
3. Removal and refitting of the access/Inspection plate.
4. Staging.

Measure and record pintle clearances. All findings to submit to Class Surveyor, Superintendent and Chief Engineer. Include removal and refitting of access 2 x (…….) mm.
The steel plates are to be removed from either side of the pintle and refitted on completion of taking readings.

While the cover plates are removed a 50mm diameter stainless steel inspection plug to be installed in way of the locking plates for the pintle. On top of the pintle a stainless steel pointer is to be installed in line with the small inspection plug.
The rudder upper bush clearance is to be recorded allow for removal of gland ring and sealing ring. These are to be installed once clearance's completed.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
HH-001-02	Shipyard Supply Costs		Per time	No

Short Description :

Rudder Plug

Long Description :

Quote for the removal of Rudder Plug. Drain and the plug to be refitted.
Carry out the air pressure test to be witnessed by the attending supdt.

HH-002 Steering gear Hydraulic Rams Type

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
HH-002-01	Shipyard Supply Costs		Each	No

Short Description :

Steering Gear Rams leakage

Long Description :

Quote for the renewal of the seals on the hydraulic cylinders.

HH-004 Rotary Vane Steering Gear

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
HH-004-01	Shipyard Supply Costs			No

Short Description :

Rotary Vane steering gear

Long Description :

To quote for;
1. check the stuffing box seal condition leakages
2. check the greasing points and grease pipes.

II-002 Anchors and Cables

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-002-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

High pressure blasting, calibration and re-marking of cables

Long Description :

Quote for;

The anchor and cables are to be ranged within the dry-dock for high pressure blasting, calibration and re-marking. Anchor connections are to be sighted and D-shackles checked. Anchor chain to be coated with fish oil yard supply.
Anchors to blast and paint black.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-002-02	Shipyard Supply Costs		Per Chain	No

Short Description :

Anchor chains to change end to end

Long Description :

Quote:

Anchor chains are to be end for ended and the outermost shackle length is to be exchanged for the innermost shackle. The attachments to the bitter end are to be closely inspected and cleaned and if necessary dye penetrate checked. Shackle pins examined/renewed.
The use of extensive heating for breaking of KENTER shackles is to be avoided. Allow for welding of 20 links / per anchor chain to be re-welded

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-002-03	Shipyard Supply Costs		Per Pc	No

Short Description :

High Pressure blasting and painting black of anchors

Long Description :

Quote:
Anchors are to be high pressure washed and visually inspected clearances are to be checked between anchor shank and flukes.

The anchor is to be supported and a hammer test of major components to be carried out.
Flukes to be visually inspected and crack tested by dye penetrant.
D-shackle pins to be inspected and end covers weld to be checked and dye penetrant tested.
Repairs to be carried out as required.
Clearances to be recorded between shank and anchor pins.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-002-04	Shipyard Supply Costs		Per ton	No

Short Description :

Chain Locker demucking /cleaning / Painting.

Long Description :

Chain locker to be pumped out and loose mud and scale removed allow for: 2 tons of mud and scale. Include any access and removal of lower chamber covers access, light and ventilation.
Allow for spot blast and coating yard supply material /m2 of internal chain locker.

Quote/ton of water /mud disposal ashore.
Include staging, mobile cranage, transportation from vessel and access lighting

II-003 Windlass Machinery

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-003-01	Shipyard Supply Costs		Per Pair	No

Short Description :

Windlass Port & stbd Brake Bands to renew

Long Description :

Quote

Brake Lining renewal with owners supply

Both port and starboard brake band to be renewed include removal of hinge pins and operating mechanisms, the FERODO brake band is to be removed and new FERODO is to be installed and the brake band re-assembled.
Brake drum to be de-scaled and machined if necessary.
Brake lining FERODO type plus securing bolts/nuts are to be yard supply.

FERODO (…….) .
Machine screw and nut (…….) .
Whilst the hinge pins for the brake band are removed these are to be checked and drilled and machined to confirm that the grease nipple installed for greasing purpose is clear and free from obstruction.
Allow for four pins per windlass brake.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-003-02	Shipyard Supply Costs		Per Pc	No

Short Description :

Steel bands to be welded on to the windlass/mooring winches brake drums

Long Description :

3 mm thickness stainless steel bands to be welded on to the brake drums of the windlass and mooring windlass.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-003-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Gypsy wheels where require building up

Long Description :

Both port and starboard windlass gypsy wheels are heavily worn and require to built up with welding allow the snugs to be ground where bulged and then welding and final grinding.
Allow 12 man hours/windlass.

Quote for the welding build up on windlass gypsy wheels.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-003-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Hydraulic motors oil seal renewal

Long Description :

Oil seals on both port and stbd motors to be removed and renewed.
Both the motors to be transported to workshop.
Old oil seals to be removed and new seals to fit.
Pinion bearings and shafts conditions to be inspected.
Motors to be replaced on inspection and tested in situ.

Note: Yard to ensure cleanliness of the hydraulic system at all the times.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-003-06	Shipyard Supply Costs		Lumpsum cost	No

Short Description :

Windlass Gypsy Wheel and Gear Inspection

Long Description :

< To be done on all vessel over 10 years of age>
Both port and Stbd Anchor chain Gypsy wheel and gear assy to be lifted up and shifted to Yard workshop for Inspection and repair.

The complete bedplate support structure of the Chain cable lifter(Gypsy) to be grit or hydro blasted , all support members examined for corrosion and wastage and renewed as required.
After repair the complete structure to be coated with 3 coast of Owners supplied epoxy paint.

The Gypsy wheel and gear to be examined and if required the worn face of the Gypsy to be built up welding with hard faced welding electrode and ground to required profile.
Shaft and split bearing to be examined and bearing bush to be replaced if found worn out. Shaft surface to be polished if found scored or uneven.
On Completion the Gypsy and gear assy to be assembled in place, bearing bush and gear teeth adequately greased and operation tried out.

Gear wheel protection cover to be inspected and renewed as necessary.
Please quote lumpsum cost for above job per Gypsy drum assy.

II-004 Mooring Winches

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-004-01	Shipyard Supply Costs		Per set	No

Short Description :

Renewal of the mooring winches brake bands

Long Description :

The brake bands are to be renewed with new FERODO and locating nuts, the steel backing plates are heavily wasted and will require to be renewed in entirety however the operating rods and gear are to be re-used.

Four mooring winch bands on forecastle, four main deck and four on poop deck.

Total of (.....) sets of brake bands.

FERODO is (……..) mm thick.
Brass nuts / bolts (……..) sets.

1. Quote for per set renewal.
2. Total cost .

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-004-02	Shipyard Supply Costs			No

Short Description :

Winch hydraulic motor oil seal renewal

Long Description :

Oil seals on both port and stbd motors to be removed and renewed.
Both the motors to be transported to workshop.
Old oil seals to be removed and new seals to fit.
Pinion bearings and shafts conditions to be inspected.
Motors to be replaced on inspection and tested in situ.

Note: Yard to ensure cleanliness of the hydraulic system at all the times.

II-005 Proof Loading of various Equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-01	Shipyard Supply Costs		time/Set	No

Short Description :

Proof Loading of Mooring Arrangements

Long Description :

The shipyard to carry out and complete a full series of tests for the proof loading of the winches, this is to be completed after the brake bands have been renewed.
If necessary brake bands are to be adjusted to allow full load on all surfaces and rods or distances pieces are to be installed to obtain maximum braking efficiency.

The certification issued by the dry dock on completion of the test and proof loading, is to include all mooring equipment including windlass port and starboard as well as main deck spring winch and poop deck mooring winches.
N.B. WINCH TEST:-
This load value is the rendering point based on 60% max rope load, once this has been found by adjustment of the brakes then the brake operating lever is to be marked with stainless steel wire or similar.

These tests to be completed to the satisfaction of the attending NKK surveyor and the necessary certificates issued.

Quote Price:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-02	Shipyard Supply Costs		Per set	No

Short Description :

Proof Loading of Deck Cargo Crane

Long Description :

Maker : (……..)
Hoisting load : (……..)
Hoisting speed: (……..)
Hoisting lift : (……..)
Slewing speed: (……..)
Topping speed: (……..)
Slewing range : (……..)

The crane wire is to be renewed (owners supply), wire drum and sheaves are to be inspected. The crane is to be load tested.
All cut outs and safety devices are to be tested.
The certification issued by the dry dock for the testing and proof loading of the midships cargo derrick is to be completed to the satisfaction of the attending NKK surveyor.

Quote Price.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-03	Shipyard Supply Costs		Price per set	No

Short Description :

Proof Loading of Aft deck stores cranes

Long Description :

Maker : (…….)
Hoisting load : (…….)
Hoisting speed: (…….)
Hoisting lift : (…….)
Slewing speed: (…….)
Topping speed: (…….)
Slewing range : (…….)

Wires are to be renewed (owners supply). Bearings of sheaves are to be repaired (renewed) after inspection (owner supply).
The certification issued by the dry dock for the testing and proof loading of the aft deck stores crane is to be completed to the satisfaction of the attending DNV surveyor and inspect all wire sheaves, for excessive wear and damage. The ship is to be issued with test certificates.

Quote price per set

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-04	Shipyard Supply Costs		Per set	No

Short Description :

Proof Loading of ER crane

Long Description :

Type electric chain hoist type crane, SWL (…….)
.
The crane and the equipment are to be inspected and then a load test is to be carried out and a certificate issued. This is too including a function test of any cut outs and or limit switch assemblies which are installed. A visual inspection of crane is to be carried out.
The yards are to stencil test load and date on the crane assembly.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-05	Shipyard Supply Costs		Per pc	No

Short Description :

Proof Loading of Engine Room/ Deck Chain blocks/Wire slings

Long Description :

Various chain blocks and wire slings are to be removed ashore for inspection test and calibration . Certificates to be issued.

Total number of chain blocks (…….)
Total number of wire slings (.....)
.

The yards are to stencil test load and date on the chain block assembly/ To provide tag for Wire slings.
Certificates to be issued.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
II-005-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Emergency Towing System

Long Description :

The forward chain to remove blast and paint allow 10 meters 80 mm chain and refit.
Aft system to remove wire completely and re-grease and refit into the ready to use position.

JJ : DECK PIPING

JJ-001 **Deck pipings**

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-01	Shipyard Supply Costs		per meter	No

Short Description :

Steam Lines on deck to be repaired/renewed.

Long Description :

Steam line on deck pipe drain line to be renewed with butt welding connection. All connection to be prefabricated.

Allow to gas free ships , Staging, access lights, transportation from vessel and Hot Work permit
Allow to pressure test

Materials:
(……..)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-02	Shipyard Supply Costs		Per meter	No

Short Description :

Tank Cleaning SW pipes to renew

Long Description :

Tank cleaning pipelines to be renewed.
Allow to gas free ships, staging, access lighting, ventilation, transportation to and from the ship and Hot Work permit

Allow to pressure test

Materials:
(……..)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-03	Shipyard Supply Costs		Per meter	No

Short Description :

Bunker Line on deck to be repaired/renewed

Long Description :

Bunker line on deck pipe to be renewed …..
Allow to gas free ships and Hot Work permit
Allow cutting off cracked parts of pipes and welded new with but welding connection.
Allow to carry out a hydro pressure test and issue certificate

Materials:
(……..)

Quote per meter/ total cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-04	Shipyard Supply Costs		Per meter	No

Short Description :

Fire/Foam Line on Deck to be repaired

Long Description :

Fire and foam line on deck pipe
Allow to gas free ships, staging,access lighting, ventilation and Hot Work permit
Allow to pressure test

Materials:
(……..)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-05	Shipyard Supply Costs		Per meter	No

Short Description :

Shower Line on Deck to be repaired/renewed

Long Description :

Shower line on deck pipeline insulation is damaged allow for removal and renewal.
Allow to gas free ships and Hot Work permit
Allow for access, painting supply of new insulation and galvanized or fibre glass sheeting etc.

Materials:
(……..)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-06	Shipyard Supply Costs		Per Line	No

Short Description :

Pressure Testing of Cargo Pipelines

Long Description :

Allow to gas free ships , Staging, access lights, transportation from vessel and Hot Work permit
Allow to pressure test .
Remove the valves and put the blank in the lines and carry out the test of each section.
Test to Design Pressure X 1.5 times

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-07	Shipyard Supply Costs		Per Line	No

Short Description :

Fire Line Pressure Testing

Long Description :

Allow to gas free ships , Staging, access lights, transportation from vessel and Hot Work permit
Allow to pressure test .
Remove the valves and put the blank in the lines and carry out the test of each section.
Test to Design Pressure X 1.5 times

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-08	Shipyard Supply Costs		Per Line	No

Short Description :

Foam Line Testing on Deck

Long Description :

Allow to gas free ships , Staging, access lights, transportation from vessel and Hot Work permit
Allow to pressure test .
Remove the valves and put the blank in the lines and carry out the test of each section.
Test to Design Pressure X 1.5 times

Quote for each section/ Total cost

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-09	Shipyard Supply Costs		Per Line	No

Short Description :

Bunker Line Testing

Long Description :

Allow to gas free ships , Staging, access lights, transportation from vessel and Hot Work permit
Allow to pressure test .
Remove the valves and put the blank in the lines and carry out the test of each section.
Test to Design Pressure X 1.5 times

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-10	Shipyard Supply Costs		Lumpsum	No

Short Description :

Annex II Overboard line in Pump Room to repair

Long Description :

Material: 316L
Crop and renew a section of the line on pump room bottom platform
L: 900 mms
Sch 120
Size: 150A
SS seamless pipe.
Following jobs to be done on Annex II pipe;
1) Annex II overboard pipe stub piece thickness gauging and renewal if required stub piece is Mild steel schedule 180.
2) Annex II pipe stub piece weld seam inspection, gouging and re-welding if required, in order to check hull plate weld seam the deflector need removal. (welded or bolted type)
3) Shell plate and deflector piece inspection and renewal if required.
4) NDT testing of the weld seam after completion of repair both inboard and on external hull plate weld seam.

Include access and staging on external hull.
Allow to gas free ships, hot work permit,
staging, access lighting, ventilation, transportation to and from the ship and Hot Work permit.
Allow to carry hydro test and issuance of certificate.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-001-11	Shipyard Supply Costs		Lumpsome	No

Short Description :

To fit stainless high pressure line / ½" on main deck for Kew machine

Long Description :

Attached SOR with details.

Yard to quote for Material (SUS 316L), labor, ventilation, staging, etc for the job

JJ-002 Deck Pipelines Valves

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-01	Shipyard Supply Costs		Per valve	No

Short Description :

Bunker manifold valves

Long Description :

Material:
Size:
Type:

The valves to be removed from place,transported ashore and overhauled.
Allow for access, staging , access lighting, mobile carnage.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-02	Shipyard Supply Costs		Per valve	No

Short Description :

Fire main Isolating valves

Long Description :

Material:
Size:
Type:

The valves to be removed from place, transported ashore and overhauled.
Allow for access, staging , access lighting, mobile carnage.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-03	Shipyard Supply Costs		Per Valve	No

Short Description :

Foam Line Isolating Valves

Long Description :

Material:
Size:
Type:

The valves to be removed from place, transported ashore and overhauled.
Allow for access, staging , access lighting, mobile carnage.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-04	Shipyard Supply Costs		Per Valve	No

Short Description :

Deck Steammain supply/Return line valves

Long Description :

Material:
Size:
Type:

The valves to be removed from place, transported ashore and overhauled.
Allow for access, staging , access lighting, mobile carnage.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-05	Shipyard Supply Costs		Per Pc	No

Short Description :

Cargo Lines Valves Overhaul & Seat Rings Renewal

Long Description :

Quote for the overhaul of cargo line valves and renewal of seat Rings;
Allow for Ventilation, access, transportation to and from ashore, cranage, accessories required,tools & Pressure test.

1. Cargo manifold cross over valves (6") .... 52 Nos.
2. Common Manifold valves(10") ..... 2 nos
3. Line master valves (6 ") ..... 4 Nos
4. Drop Line Valves (6 ") ..... 8 Nos

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-06	Shipyard Supply Costs		Per Valve	No

Short Description :

Overhauling of Valves in Fore castle

Long Description :

The valves to be removed from place, transported ashore and overhauled.
Allow for access, staging , access lighting, mobile cranage, transportation to and from ashore, relevant gaskets and pressure test.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-002-07	Shipyard Supply Costs		Per valve	No

Short Description :

Overhauling valves in the Pump Room

Long Description :

The valves to be removed from place, transported ashore and overhauled.
Allow for access, staging , access lighting, mobile cranage, transportation to and from ashore, relevant gaskets and pressure test.

JJ-003 Access for deck piping repairs

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
JJ-003-01	Shipyard Supply Costs		1	No

Short Description :

Access for deck piping repairs

Long Description :

Access for deck piping repairs

KK : DECK FITTINGS, ACCESSES, BOLLARDS, HANDRAILS, TANK VENTS

KK-001 Tasks of tank vents.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-001-01	Shipyard Supply Costs		Per pc	No

Short Description :

Fuel tank vents

Long Description :

Allow for removal and overhaul of all bunker tank and lubricating tank vents including renewal of vent screens
Allow to gas free ships, staging, access lighting, ventilation and Hot Work permit
All vents to be stitched marked tank Identity

Materials:
Stainless steel mesh class approved dimensions plus new jointing and nuts and bolts..

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-001-02	Shipyard Supply Costs		Per Pc	No

Short Description :

Water Ballast tank vents

Long Description :

Allow for removal and overhaul of all water ballast tank vents including renewal of vent screens where fitted.
Allow to gas free ships,staging ,access lighting,ventilation and Hot Work permit
All vents to be stitched marked tank Identity

Materials:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-001-03	Shipyard Supply Costs		Per pc	No

Short Description :

Save -all around tank vents

Long Description :

Allow for all saveall containment areas to be stitched marked containment capacity.

Allow to gas free ships and Hot Work permit

Materials:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-001-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Mushroom Ventilator housing

Long Description :

Allow for removal the following ventilator heads to ashore and the internal surfaces to be grit blasted SA 2.0 and then coated 2 x primer and 2 time top coat.
Prior to blast and painting the identification of the area served is to be bead welded.
The open and closing flap is to be proven operational.
The securing bolts to be renewed and jointing compound
Allow for :.
Upper Deck: (E.R port/stbd fans)
Main Deck (pump room fan, E.R fan where fitted)
Forward Deck (forecastle store vent, bow thruster room vent.)

KK-002 Accesses on deck

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-002-01	Shipyard Supply Costs		Per meter	No

Short Description :

Main Mast Access ladder

Long Description :

Allow for fabrication and installation of safety cage around the main mast access ladder.
Allow to gas free ships and Hot Work permit
Allow for staging

Materials:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-002-02	Shipyard Supply Costs		Per set	No

Short Description :

Water tight doors

Long Description :

Allow for removal and supply of new watertight door packing.

Allow for 6 doors and 15 meter of water tight packing and glue.

The door dog wedges are worn allow for rebuild and grinding of the wedges on completion hose /chalk test to be carried.
Allow for 6 doors and 8 wedge / door.

Materials:

Quote price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-002-03	Shipyard Supply Costs		per set	No

Short Description :

Forward store access hatch

Long Description :

Allow for removal of the present booby hatch which at present open's aft and turn the hatch around to open forwards.
You will need to include removal and refitting of the hinge brackets and replacing these on the after structure .
Hose test/chalk test on completion.

Materials:

Quote price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-002-04	Shipyard Supply Costs		Lumpsome	No

Short Description :

Renew guard rail / stand / ladder from radar mast

Long Description :

Renew guard rail / stand / ladder from radar mast
Required item estimated as follow,
Pipe carbon steel un-galvanized Size 50A Length 6500mm
Pipe carbon steel un-galvanized Size 50A Length 8100mm
Pipe carbon steel un-galvanized Size 25A Length 6500mm
Pipe carbon steel un-galvanized Size 100A Length 3000mm
Pipe carbon steel un-galvanized Size 25A Length 1500mm
Pipe carbon steel un-galvanized Size 50A Length 2250mm

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-002-05	Shipyard Supply Costs		Lumpsome	No

Short Description :

To install stage with strong support to place ETA chafing chain

Long Description :

To install stage with strong support to place ETA chafing chain
Size of stage L-1.5M B 1.5M

Attached SOR with details

KK-003 Mooring equipment (repair) marking

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-003-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Mooring equipment load test marking

Long Description :

Allow for removal by grinding of original load test details ……Kn, and instead convert to Tonnes "T" by bead welding.

Allow for all rollers and fairleads.
Aft Deck: (…….)
Main Deck (……)
Forward Deck (…...)

Materials:

Quote price

KK-004 Port /Stbd Gangway to Overhaul,Repair

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-004-01	Shipyard Supply Costs		Per pc	No

Short Description :

Port & Stbd Gangway to be taken ashore for complete overhaul

Long Description :

1. Both ladders to be taken ashore, sandblasted and weaker sections to be renewed. Additional repairs required to be advised to owners representative for approval.
2. Gear box to completely overhaul.
3. Both gangways to be load tested as required by SOLAS in the presence of class surveyor.
4. Both gangway steps to be supported by 70/70 mms angle bar(MS) for additional strengthening.

Allow for transportation to and from ship, carnage, load testing and welding of additional angles.
Quote per gangway total estimated cost.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-004-02	Shipyard Supply Costs		Pc	No

Short Description :

Proof Load testing of the wharf ladder

Long Description :

Material: Aluminium Alloy
Length:
Breadth:
Max Height:
Steps:
Max persons: 4
The ladder to be inspected and then load test is to be carried out and certificate issued.
Yard to stencil test load and date on the ladder

KK-005 Anchor Chain Guard fabrication

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-005-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Anchor Chain cover to fabricate

Long Description :

To fabricate chain cover with MS plate as per the sample

Allow for the Hot work, Installation, transportation, access, staging, carnage, tools and equipment required to complete the job.

KK-006 Bow Stopper locking

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-006-01	Shipyard Supply Costs		per set	No

Short Description :

Bow stopper Locking arrangement

Long Description :

1. Both anchor chains bow stopper locking arrangement pin to renew.
Length of the Pin... 200 mms
Dia of Pin.... 30 mms
Material
2. Stoppers of both anchor chains to be built up with welding in the loading area.

Allow for hot work permit, cranage, transportation, ventilation, tools and equipment

KK-007 main Mast support bracket for electrical fittings

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-007-01	Shipyard Supply Costs		Pcs	No

Short Description :

Main mast support brackets for electrical wires to renew

Long Description :

Corroded/wasted brackets on main mast for electrical wires to crop up and renew.
Cable support: 30 mms flat bar
Total length required: 10 mtrs

Allow for access, staging, carnage, how work permit ,equipment and tools required for the completion of the job.
Allow for removing and fixing back the holding clamps on the cables to the brackets.

KK-008 Fairlead rollers cover plates renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-008-01	Shipyard Supply Costs		Pcs	No

Short Description :

Fairlead Rollers cover plate renewal

Long Description :

1. Renew all the cover plates of the fairlead rollers.
Material: Mild steel
Thickness : 5 mms
Diameter: 330 mms
Total numbers: 32
2. Each plate to have a threaded hole at the center and a plug to cover the hole.
Center hole size : 24 mms
Allow for hot work,access, transportation, hotwork permit.staging if reqd,cranage.

KK-010 GOA transot security arrangement

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-010-01	Shipyard Supply Costs		Pcs	No

Short Description :

GOA transit security arrangement to strengthen

Long Description :

There are 5 openings on each port and stbd side. To weld atleast three vertical flat bars in each opening.
Flat bars to be covered with bleaching plates
Size of the flat bar to 70 mms X 1 mtr.
Bleaching plate to be 1 x 1 mtr size.

KK-013 Modification at Panama Chock Welding with Stainless steel band at FWD and AFT mooring station.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-013-01	Shipyard Supply Costs			No

Short Description :

Panama Chocks groove weld

Long Description :

Total Panama leads = 8 Nos to repair.
Weld to fill - Length -15 cm, Depth – 5 mm

KK-014 Modification at FAIRLEAD MOORING STATION PORT AND STBD BOW

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-014-01	Shipyard Supply Costs			No

Short Description :

Windlass and mooring winch platform stage frame and grating

Long Description :

To renew windlass and mooring winch platform stage frame and grating

KK-023 To crop and renew Cargo Cranes top railing

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-023-01	Shipyard Supply Costs			No

Short Description :

To crop and renew Cargo Cranes Top railings

KK-024 Renew the foundation brackets of Comb Ladder

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-024-01	Shipyard Supply Costs			No

Short Description :

To crop and renew the foundation brackets for combination ladder

KK-025 AFT and FWD ETA Inspection

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-025-01	Shipyard Supply Costs		Per set	No

Short Description :

AFT Emergency Towing Arrangement

Long Description :

AFT Emergency Towing arrangement wire cable drum to be unreeved and complete length of wire rope to be inspected and greased as required.
Cable drum brake assy to be inspected and free rotation to be checked and confirmed. Any hoisting or retrieval arrangement to be tried out.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-025-02	Shipyard Supply Costs		Lumpsum cost	No

Short Description :

FWD Emergency Towing Chain cable

Long Description :

The 6 Mtrs length of Stud Link chain cable to be inspected and grit blasted and painted with 2 coats of owners supplied epoxy paint.

Please quote lumpsum cost for this job

KK-026 Crane Mast House No. 1 - 4 Cross Ways checker plates renewal

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-026-01	Shipyard Supply Costs			No

Short Description :

Crane Mast House No. 1 - 4 Cross Ways checker plates renewal

Long Description :

Job Scope:

To crop out the existing cross way checker plates and renew the same…..4 Nos
All Materials to be yard supply.

-Checker plates: Length=1700 mm, Width=980 mm, Thickness= 8 mm.
-Supporting angle: Size= 100 x 100 mm, Length= 1750mm, Thickness=8 mm……..2 Pcs
-Under plate supporting angle bar: Size=100 x 100 mm, length=980 mm, Thickness= 8mm……..2 Pcs

KK-027 Cross Deck Catwalks Fabrications

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-027-01	Shipyard Supply Costs			No

Short Description :

Cross Deck Catwalks Fabrications

Long Description :

Nos of ladders to fabricate: 5 Pcs.

Job Scope:

1. F.O Bunker tanks are to be emptied, and gas freeing to be carried out. Gas content to be measured and gas free certificate to be issued prior to carrying out the job.
2. New ladder to be fabricated in shore workshop as per the required dimensions given in the specification.
3. To crop out any remaining pieces of old brackets on the deck.
4. Surface to be prepared prior to welding of the Foot base plate and foot base bar in place. Install the ladder by bolting the foot to the foot base bar.
5. All materials to be supplied by Yard.

-Angle Bar: Size= 65 x 65mm, Total length= 17020mm, Thickness= 8mm.
-Flat bar: Width: 65 mm, Total length= 2400mm, Thickness= 12mm.
-Round bar: OD= 20mm, Total length= 2260mm.
-Pipe: OD=32mm, Total length= 2260mm.
-Checker Plate: 830x2110mm
-Foot base plate: 50x100mm……10 Pcs
-Foot base bar: 90x65x12mm……10 Pcs
-No. of holes & bolts in Foot base bar…10 holes x M16 bolts.

KK-028 Deck life line stanchion to fabricate

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-028-01	Shipyard Supply Costs			No

Short Description :

Deck life line stanchion to fabricate

Long Description :

Nos of Stanchions to fabricate: 36 Pcs.

Job Scope:

1.To fabricate stanchions as per sample provided.
2. F.O Bunker tanks are to be emptied, and gas freeing to be carried out. Gas content to be measured and gas free certificate to be issued prior to carrying out the welding of the Main stanchion insert base rod to the deck.

-Main Stanchions pipe dimensions: OD-40mm, Length-1050mm.
-Main stanchion insert base rod with M12 bolt mid hole: OD-30 mm, Length-85mm
-Main Stanchion supporting rods dimension: OD-25mm, Length-450mm…..2 Pcs.
-Supporting rods securing brackets: 4 Nos with M12 bolts hole.

KK-029 No.2 Stbd side Mast house chemical store door to replace.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-029-01	Shipyard Supply Costs			No

Short Description :

No.2 Stbd side Mast house chemical store door to replace.

Long Description :

Job Scope:

To crop out the dented door along with frame from the mast house bulk head and weld back new steel water tight door with frame.

Single handle Steel Watertight Door Specification.
==========
Type: AY1165-8-90x12-5.1 GB/T 3477-1996.
Opening direction: Right.
Clean size (HxW): 1650x650
Cut size (HxW/R): 1750x750/R150.
Sill: 380.
Cutting height: 330

KK-030 Port & Stbd Bunker Manifold Drip Tray Legs Fabrications

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
KK-030-01	Shipyard Supply Costs			No

Short Description :

Port & Stbd Bunker Manifold Drip Tray Legs Fabrications

Long Description :

Nos of Tray legs to fabricated: 2 set.

Job Scope:

1. F.O Bunker tanks are to be emptied, and gas freeing to be carried out. Gas content to be measured and gas free certificate to be issued prior to carrying out the job.
2. To crop out any remaining pieces of old Stands (Legs) piece on the deck, and surface to be prepared prior welding the Legs in place.
3. 4 Nos of new Stands (Legs) to be fabricated as per the required dimensions given below.
4. All materials to be supplied by Yard.

-Angle Bar: Size= 75 x 75mm, Total length=330 Thickness= 8mm….2 Pcs.
-Angle Bar: Size= 75 x 75mm, Total length=300 Thickness= 8mm….2 Pcs.

LL : CARGO SYSTEMS

LL-001 P/V Valves

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-001-01	Shipyard Supply Costs		Per set	No

Short Description :

P/V valves overhaul

Long Description :

Include access staging and removal ashore. Strip down, lapping of seats in way of valve seat rings, renewal of flame screen with approved type.
The valve is considered as set of Pressure and vacuum valves

Maker's opening pressure:
Total number .....
Quote for the price per unit set of valve including the certificate.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-001-02	Shipyard Supply Costs		Pcs	No

Short Description :

P/V valves to be modified with new spare as per new regulation

Long Description :

PV valves to be modified with new spares as per the new regulation and the pressure and vacuum settings to be witnessed by class surveyor.
Certificate to be issued after satisfactory settings and testing.

Allow for access, staging, cranage, transportation to and from ashore, tools and equipment required for the satisfactory completion of the job.

LL-002 P/V lines and columns

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-002-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Blow thru each P/V line of air

Long Description :

Each P/V line is led to a vertical column on these columns are drain lines and connections. Your tender is to include that when the P/V valves are removed each line is blown clear air and all lines proven clean and free from debris as well as all drain valves being clean and free.

Total lines.....

Quote price.....

LL-003 Portable cargo discharge hoses

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-003-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Portable cargo discharge hoses test

Long Description :

There are (….) of flexible cargo hoses that require being pressure tested to 15 bar and a final test certificate issued.
The FRAMO Emergency pump discharge hose is to be pressure tested,
(4 inch x 30 foot).
Yard tender is to include access and removals from the vessel and issue of certificate and securing all pipelines together for the pressure test.
Each hose is to be stamped date of test and the number of the individual certificate certificate to include elongation under test.
Continuity test top be carried. Results shown to superintendent and certificates issued.
Each hose is to be given its own certificate to match the number of hoses.

Quote price

LL-004 Cargo Pipeline Pressure test

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-004-01	Shipyard Supply Costs		Per meter	No

Short Description :

Cargo pipe line Pressure Test

Long Description :

Pipeline material SUS 316 L Schedule 20E.
All cargo pipelines whilst at the yard are to be filled with good quality distilled water and pressure tested to 15 bar, a certificate is to be issued.

There are (….) diameter individual cargo lines.
There are (….) ominal diameter common cargo lines.
The test pressure is 15 bar. + Certificates

Quote price

LL-005 Cargo Pipe Line manifold supports

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-005-01	Shipyard Supply Costs		Per Inch size of pipe	No

Short Description :

Cargo pipeline manifold supports

Long Description :

Pipeline material SUS 316 L Schedule 20E.
All cargo pipelines whilst at the yard are to be checked for fractures in way of the pipe support at the manifold area.
There are (….) diameter individual cargo lines.
There are (….) nominal diameter common cargo lines.
Where fractures found to be rewelded and the support renewed.

Quote price

LL-006 Inert gas system

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Inert gas supply tank valves

Long Description :

Open and overhaul inert gas tank supply valves 150 mm nom bore.
Price /valve including new joints nuts and bolts.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-02	Shipyard Supply Costs		Per Pc	No

Short Description :

Open and overhaul N/R valve on the main line

Long Description :

Open and clean NR valve on main line.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Open and overhaul main stop valve

Long Description :

Size: Nominal bore

Open and overhaul the main stop valve nominal bore

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-04	Shipyard Supply Costs		Lumpsum	No

Short Description :

Deck seal inspection of the coating

Long Description :

Open deck seal and prepare for inspection repair of coating.
Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-05	Shipyard Supply Costs		Per set	No

Short Description :

Remove the block valves and positioners to workshop

Long Description :

Remove the block valves and positioners to the workshop and include all micro switches, (vsls fitted with NO deck water seals) open and service test etc

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Scrubber tower to open up for inspection of coating

Long Description :

Scrubber tower to open and clean repair coating where damaged.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-07	Shipyard Supply Costs		Per Pc	No

Short Description :

Inert gas valve in E.R to service

Long Description :

Inert gas valve in E.R. to remove to workshop, open and service valve and positioner and micro switches, allow 300 mm nom bore. Allow for service and test.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-08	Shipyard Supply Costs		Per Pc	No

Short Description :

Inert gas fans to open, remove to workshop, clean and balance.

Long Description :

Inert gas fans to dismantle , motor and impeller to remove to workshop clean, inspect thoroughly , carry out DP test for any cracks on the impeller and balance. On completion to assemble back and function test. Motor to be overhauled , bearings to be renewed with Owners supplied new bearings.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-09	Shipyard Supply Costs		Per location	No

Short Description :

Inert gas Generator casing to repair

Long Description :

Inert gas generator casing to repair where leakage noted allow for 316 rods with proper grinding and removal of fractures. Reweld with correct rod.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-10	Shipyard Supply Costs		Per Pc	No

Short Description :

Burner assembly service

Long Description :

Burner assembly servicing to be carried out

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-11	Shipyard Supply Costs		Per meter	No

Short Description :

Install FW flushing line to IGG.

Long Description :

Install fresh water flushing line to inert gas generator.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-12	Shipyard Supply Costs		Per Pc	No

Short Description :

Oxygen analyzer sensor and recorder to service and calliberate

Long Description :

Oxygen analyzer sensor and recorder to service and calliberate

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-13	Shipyard Supply Costs		Per Pc	No

Short Description :

Mast Riser to open and service clean

Long Description :

Mast riser to open and service clean

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-14	Shipyard Supply Costs		Per pc	No

Short Description :

Deck Vacuum Breaker to clean and service

Long Description :

Deck Vacuum breaker to open drain valve to drain water, clean and service the sight glass.

Quote for the overhaul.
Include opening/closing, staging, access lights, ventilation, transportation to workshop and back to ship

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-006-16	Shipyard Supply Costs		nos	No

Short Description :

Overhaul of N2 Valves on deck (Block and Bleed Valve)

Long Description :

1. Check condition of Pneumatic valves in N2 line on deck. Valves to be opned up and overhauled as required. No of valves in System 3 nos
2. Non return valve on deck to open and overhaul Nos 1 no

LL-007 Cargo tank Access lid sighting port

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-007-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Cargo tanks access lids sighting port

Long Description :

Allow for (.....) Lids
Allow for transportation to ashore and back in place, removal and fitting , staging, ventilation and the access lighting ,mobile carnage.

LL-009 Cargo tanks gas freeing vent

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-009-01	Shipyard Supply Costs		Per set	No

Short Description :

Cargo tanks gas freeing Vent flame screen inspection

Long Description :

Cargo tank gas freeing vent flame screens to be inspected and all Teflon gaskets to be renewed .
Spares from owners supply.

Allow for staging, gas freeing, ventilation,cranage

LL-010 Tank Cleaning machines

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-010-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Tank cleaning machines overhaul

Long Description :

Fixed cleaning machines to be overhauled with owner supplied spares.

Allow for staging, gas freeing, ventilation, cranage & transportation to and from the ship, installation back after overhauling, and in situ testing.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-010-02	Shipyard Supply Costs		Lumpsum	No

Short Description :

Tank cleaning heater sea water side cleaning

Long Description :

Sea water side of the tank cleaning heater to be cleaned in place, pressure test and issue the certificate.

Allow for staging, gas freeing, ventilation, cranage , installation back after overhauling, and in situ testing.
To issue the certificate.

LL-011 Ballast water Pump overhaul.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-011-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Ballast water Pump overhaul

Long Description :

To dismantle,remove to shore workshop,clean,inspect,overhaul and renew parts as necessary.
This to be witnessed by attending owners supdt/chief engineer.

Allow for staging, gas freeing, ventilation, cranage & transportation to and from the ship, installation back after overhauling, and in situ testing.

LL-012 Framo Thermal heater element cleaning

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-012-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Framo Thermal heater element cleaning

Long Description :

Framo oil heater element to clean with ultra sonic cleaner.

Allow for staging, gas freeing, ventilation, cranage , and in situ testing.

LL-013 Save all tray around Hydraulic Storage tank

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-013-01	Shipyard Supply Costs		per Meter	No

Short Description :

To fabricate Save all tray around Hydraulic storage tank

Long Description :

100 mms flat bar to be welded around the hydraulic storage tank.
Material: Mild steel
length: Approx. 5 mtrs

Allow for staging, gas freeing, ventilation, tools & equipment, hot work permit

LL-014 Hatch Covers and Hyd System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-014-01	Shipyard Supply Costs		per meter	No

Short Description :

Hatch cover seals renewal

Long Description :

Quote per mtr of Hatch cover seal renewal for:
1. Straight Packing per mtr
2. Corner packing - per corner packing

Estimate 5 mtr straight packing renewal per hatch cover, and 2 corner packing per hatch cover

Quote to be inclusive of:
- Access and Staging work (or cherry picker)
- Lighting if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-014-02	Shipyard Supply Costs		Per cylinder	No

Short Description :

Hatch cover hydraulic cylinder repair

Long Description :

Yard to quote for cost of renewing seals of the Hatch Cover Hydraulic Cylinders with Owners supplied spares .

Quote for Hydraulic cylinder:
A) Disconnecting pin from cover end and renewal seal in situ
QUOTE A, Per Cylinder

B) Disconnecting cylinder and moving to workshop, dismantling of complete cylinder and piston. Polishing of piston rod. Refitting with owner supplied seals and fitting back onboard
Quote B, Per Cylinder.

In both cases testing of the hatch cover operation to be shown to attending Superintendent.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-014-03	Shipyard Supply Costs			No

Short Description :

hatch cover Resting Pads

Long Description :

As per instructions from the attending makers technician, yard to quote for renewal for bearing pads for all 5 hatch covers, with owners supplied spares.

Estimate: 4 bearing pads per hatch cover (total 20), Quote cost of renewal per Pad

Quote to include:
- Staging and accessory work
- Welding and cutting equipment and Hot Work Permit if required

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-014-04	Shipyard Supply Costs			No

Short Description :

Hatch Cover leak Test

Long Description :

Yard to quote for Hatch cover leak test - on two occasions (before and after repairs) please quote separately for:

A) Ultrasonic leak detection test - 2 times for all hatch covers

B) Leak test by fire hose and chalk - 2 times for all hatch covers

LL-015 Cargo Hold Bilge Well Stripping System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-015-01	Shipyard Supply Costs		Lump Sum	No

Short Description :

Cargo Hold Bilge well stripping system

Long Description :

To quote for the below;
1) check all cargo holds bilge pump out system for satisfactory operation
2) All hold bilge NRV v/v's to be opened up and o'haul if required.
3) All hold bilge hydraulic operated v/v to check and o'haul if required.
4) If any hold bilge not pumping out the pipeline to check and de-clog if required.

LL-016 Cargo Cranes

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-016-03	Shipyard Supply Costs		Lum sum / hook block	No

Short Description :

All 4 cranes main hook block complete O'haul

Long Description :

All 4 cranes main hook block to complete dismantle, inspect the condition of pin, bearing, sheave, double hook and O'haul.

LL-022 N2 GENERATOR

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-022-01	Shipyard Supply Costs		Lumpsum Cost	No

Short Description :

N2 generator Alarm Test

Long Description :

All alarms of Nitrogen Generator Plant to be tried out to ensure proper functioning.

All system pressure transducer and pressure gauges to be calibrated.

Oxygen analsyer sensor to be calibrated and certificated issued for same.

LL-023 Ballst Valve in Pump Room

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-023-01	Shipyard Supply Costs		1.00	No

Short Description :

Inspection for Ballast valve in Pump room & ballast tanks

Long Description :

Particulars of the valves:
Maker: Nakakita Seisakusho Co. Ltd.

Ballast tank Main valves: Size 200mm // Rating: 05 K- 13 nos.
Ballast pump discharge valves: Size 400mm // Rating: 05 K – 02 nos.
Ballast pump suction valves: Size 450mm // Rating: 05 K – 02 nos.

LL-024 Log securing Stanchions on Deck

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
LL-024-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Repair of Log securing stanchions on Deck

Long Description :

Job Scope:
-To eased up all the stanchions.
-To lift up the stanchions in upright position and carry out hydro blasting of the rust/scale.
-To repair rigging eyes, pads, hook blocks as required.

MM : CARGO CONTROL SYSTEM

MM-001 Framo Cargo Pumping Control Panel

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-001-01	Shipyard Supply Costs		per time	No

Short Description :

Cargo Pumping Control panel

Long Description :

Cargo Pumping control panel: To inspect and calibrate and caiberate instrumentation and control system by Framo.

Quote price

MM-002 Cargo Loading computer

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-002-01	Shipyard Supply Costs		Per time	No

Short Description :

Cargo Loading Computer

Long Description :

The vessel is equipped with a fixed load computer HP -1702, computer and loadmaster is approved by class; you are to arrange a technician attend for full service and calibration of the load computer.
On completion a certificate is to be issued.

Quote price for service and calliberation

MM-003 Cargo Monitoring Panel

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-003-01	Shipyard Supply Costs		Per time	No

Short Description :

Cargo monitoring Panel

Long Description :

To Check By Maker the Cargo Monitoring Panel – Instrumentation - and Issue certificate.

Quote price

MM-004 Cargo tank High Level and Overfill Alarm

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-004-01	Shipyard Supply Costs		Per Hour	No

Short Description :

Cargo tank High level and Overfill Alarm

Long Description :

Type: (….)Units

Supply Maker technician to check and repair that the overfill and high level detecting systems are working and all probes are to be calibrated and checked.
Supply technician to check and repair, individual tank units are to be checked and calibrated and repaired.
The units are to be opened if required and cleaned and the units serviced. All access plates are to be re-secured with new nuts and bolts and joint material. Silicon sealant to be used sparingly around joints.
Spare parts at cost.
Certificate to be issued once all alarms tested and calibrated.
On completion a certificate is to be issued, confirm operation and calibration of sensors.

MM-006 Cargo Vapour Pressure Alarm

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-006-01	Shipyard Supply Costs		Per/Hour	No

Short Description :

Cargo Vapour Pressure Alarm

Long Description :

Supply technician from Makers to check and repair as required the vapour alarm systems.
Advise hourly rate for technician.
The unit is to be opened and cleaned and the pressure vacuum alarm set points are to be calibrated and tested, units serviced.
High pressure + 21.00 KPa.
Low pressure -7.0 KPa
All access points are to be re-secured with new nuts and bolts and joint material. Spare parts at cost.
Quote price

MM-007 Cargo Hold Water Ingress System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-007-01	Shipyard Supply Costs			No

Short Description :

Cargo Hold Water ingress alarm system

Long Description :

Yard to quote for repair and testing

MM-008 AUS Caliberation

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
MM-008-01	Shipyard Supply Costs		Per pcs	No

Short Description :

Shore calibration of AUS separator Level pressure transmitters

NN : ACCOMMODATION

NN-001 Accommodation Doors

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-001-01	Shipyard Supply Costs		Per/day	No

Short Description :

Cost to supply material and labour to repair door

Long Description :

Quote for labour to work on increasing the shelving area.

NN-002 Air conditioning repairs

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-002-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Open and Clean internal fittings including evaporators and heaters

Long Description :

Cost to supply material and labour to open and clean all internal fittings including evaporator and heaters.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-002-02	Shipyard Supply Costs		Lumpsum	No

Short Description :

Descaling/Painting of the casings

Long Description :

All casing to be descaled and painted internally.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-002-06	Shipyard Supply Costs		Per set	No

Short Description :

Checking of the electrical system to be checked

Long Description :

The compressor electrical system to be checked and confirmed that the compressor motors/compressors are adequately protected.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-002-07	Shipyard Supply Costs			No

Short Description :

Provision davit slewing movement to restore

Long Description :

Provision crane slewing movement is not working. The likely cause is old grease which is dried up and jammed.

The rotating column is to be eased up by heating and crane boom and rocking it gently P-S using mooring winch / chain block. The old grease to be removed by pumping Penetrol or similar chemical and new grease pumped in.

If this method does not work, the davit column to be lifted with shore crane and clean the slewing post.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-002-08	Shipyard Supply Costs			No

Short Description :

Port and starboard bunker davits siezed

Long Description :

Port and starboard bunker davits are seized. To be freed up by heating the external slewing post and renewing th egrease.

NN-003 Alleyway & Stairwell 2nd handrail

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-003-01	Shipyard Supply Costs		Per meter	No

Short Description :

Prefabrication and installation of the Handrails inside accommodation.

Long Description :

Allow for prefabrication of 4 pc, 50 mm wide 6 mm thick mild steel based flat type hand rails with 4 pc "L" shape mild steel rods (12 mm diameter) welded at the bottom.
Allow for re-welding of these pre-fabricated mild steel rails to each of the 4 staircase bulkheads.
Allow for covering /coating the flat mild steel hand rails on upper face to the sides with suitable plastic material and thickness (Red color) for smooth holding.

Materials:
Flat rails mild steel (IMPA Code) – 3,83 meter + 170 mm + 170 mm ;
L-shape mild steel rods (IMPA Code) 100x50x12 mm – 16 pc;

NN-004 Accomodation Miscellaneous items

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-004-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Accommodation water fixtures renewal

Long Description :

To renew the water fixtures as per below;
1. Shower mixture sets : 4 sets
2. Wash basins renewal: 3 sets
3. Crew toilet Flush and fittings renewal: 1 set
4. Crew common shower Rm shower head and fittings: 1 set
5. Crew mess room wash basin mixer set and taps renewal:
6. Deck crew changing room wash basin renewal: 1 set
Above parts to be yard supply.

NN-005 Installation of Fixed Fiber door in common shower area

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-005-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Installation of Fixed fiber door in common shower area

Long Description :

Size of the door: 75 mm x 150mm
Total number of doors : 6 pcs
Allow for staging, ventilation, cranage & transportation to and from the ship, installation back with all fittings yard supply.

NN-006 Provision referigeration system

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-006-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Refer compressor overhaul

Long Description :

To quote for refer compressor overhaul including spares.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-006-02	Shipyard Supply Costs		Lumpsum	No

Short Description :

Refrigeration system to check for leaks.

Long Description :

Refrigerant system to be checked for leaks including evaporator as well as piping and condenser, filters and dryers are to be renewed.

NN-011 Accomodation Crew cabin Toilet doors repair

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
NN-011-01	Shipyard Supply Costs			No

Short Description :

Accommodation Crew Cabin Toilet Doors repair.

OO : BRIDGE AND NAVIGATING EQUIPMENT

OO-001 Magnetic Compass

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-001-01	Shipyard Supply Costs		Per Set	No

Short Description :

Magnetic compass servicing & Calliberation

Long Description :

The magnetic compass located is situated on the monkey island, to be serviced and calibrated.
The compass is to be removed to a recognized workshop for service and overhaul.
When the service is completed and the compass re installed then the compass has to be re-calibrated.
The necessary calibration and repair certificate is to be issued.

Quote price

OO-002 Gyro compass and Auto pilot

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Overhaul and servicing of Gyro Compass

Long Description :

The unit is to be overhauled and serviced by approved technicians, report and calibration/service certificate is to be issued.
Off course alarm to be tested and calibrated.

OO-003 Electromagnetic Log

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-003-01	Shipyard Supply Costs		set	No

Short Description :

Electromagnetic speed log servicing and calibration of the repeaters

Long Description :

(maker……..)

The electromagnetic speed log does not operate and requires to be fully serviced both the repeaters in the bridge and engine control room. These are to be calibrated and synchronized the sensing unit in the engine room is also to opened and full serviced.
This work is to be undertaken at the same time, as the magnetic log speed valve assembly on the hull is fully overhauled.
Certificate is to be issued on completion of service.

Quote price

OO-004 Radars

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-004-01	Shipyard Supply Costs		Per set	No

Short Description :

Servicing of Radars

Long Description :

Yard to advise standard service cost for vessels radars.
Standard service including check of drive gears scanners etc.

Quote price

OO-005 VDR

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-005-01	Shipyard Supply Costs		Per set	No

Short Description :

Servicing of the VDR

Long Description :

VDR to be serviced.

OO-006 Speed Log

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-006-01	Shipyard Supply Costs		Per set	No

Short Description :

Speed log servicing

Long Description :

Type:
Maker:

Pls submit the quotation for following job scope;
1) Speed log sensor to be withdrawn from place, cleaned and serviced.
2) Cable continuity from sensor to bridge display unit to check.
3) Speed log to be calibrated and display unit readouts checked.
4) Isolating gate valve in cofferdam to be overhauled. Valve gland and flange gaskets renewed.
5) Cofferdam manhole packing renewed.

The isolating valve system in the engine room is to be overhauled.

OO-007 Echo Sounder

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-007-01	Shipyard Supply Costs		Per set	No

Short Description :

Echo sounder servicing

Long Description :

The echo sounder to be serviced, including printer where fitted.

OO-008 ECDIS Installation

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
OO-008-01	Shipyard Supply Costs		Per day	No

Short Description :

ECDIS Installation

Long Description :

Yard to provide assistance to service engineer to install two owner supplied Table mounted ECDIS units to be installed as per makers instructions.
The assistance required will be for laying the cables.
All cables and accessories to be owners supply.

PP : BRIDGE RADIO AND COMMUNICATION EQUIPMENT

PP-001 Radio equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
PP-001-01	Shipyard Supply Costs		Per set	No

Short Description :

Servicing of the Radio Equipment

Long Description :

An overhaul by makers representative to be carried out on all radio equipment.

VHF

GMDSS

EPIRB.

SAT communication.

SAT Dome.

Battery systems.

To be in compliance with Class requirements with regards test and maintenance .
Reports to be issued.

PP-002 To install NSSL

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
PP-002-01	Shipyard Supply Costs			No

Short Description :

To install NSSL VSAT.

Long Description :

Job scope.

To remove the present KVH unit and install NSSL VSAT inplace.

QQ : INSTRUMENTATION AND CONTROL EQUIPMENT

QQ-001 Oily water Filtering Equipment (15 PPM)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-001-01	Shipyard Supply Costs		set	No

Short Description :

Oily water Separator overhaul

Long Description :

The unit to test under the standard of International Maritime Organization (IMO) resolution MEPC.107(49)
By JG and MED/EC and was type approved as 15 ppm Bilge Separator.

The casing to open and internally washed and inspected any wasted areas are to be renewed.
The OWS coalescer filter is to be renewed. (Owners supply)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-001-02	Shipyard Supply Costs		Per set	No

Short Description :

Calibrate 15 PPM monitor

Long Description :

To calibrated 15 ppm alarm monitor.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-001-03	Shipyard Supply Costs		Per set	No

Short Description :

Bilge Pump Overhaul

Long Description :

To be opened and checked any renewals are owners supply.

QQ-002 ODME

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Servicing and Calibration by an approved service agent

Long Description :

The unit is to be serviced and calibrated by an approved service agent and report and calibration certificate issued.

QQ-003 Cargo Tank Ullage system (Hermetic)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-003-01	Shipyard Supply Costs		Per set	No

Short Description :

Cargo tank Ullage system (Hermetic) caliberation

Long Description :

The three units are to be landed ashore for calibration and service these units detect interface and temperature.
When returned the yard is to issue a test and calibration certificate.
Spare parts at cost.

Quote price

QQ-004 Instrumentation and Control Equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-004-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Pressure gauges Calibration & issuance of certificate

Long Description :

Pressure gauges to remove ashore for calibration and issue test certificates;
1. Framo test pressure gauge 1 60mwc
2. Framo test display of Pressure LEO2ex 2 0-300/700 Bar
3. Manifold Pressure gauges 13 0-1.5 Mpa
4. M/E Fuel injector pressure testing gauge 1 0- 50 Mpa
5. Aux Engine Fuel V/Vs testing 1 0-50 Mpa
6. Oil Fired boiler steam pressure gauge 1 0-1.6 Mpa
7. Exhaust gas economizer steam pressure gauge 1 0-2.5 Mpa
8. M/E Hydraulic tools pressure gauge 1 0-100 Mpa

QQ-005 Gas Detection equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-005-01	Shipyard Supply Costs		Per set	No

Short Description :

Service and Calliberate Portable gas detection equipment

Long Description :

Following gauges to be moved ashore, service and calliberate.
1. Combustible gas detector 2
2. Portable Oxygen meter 2
3. Portable Toxic Gas detector 2
4. Portable multi gas detector 3

QQ-006 Fixed Gas Detection Equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-006-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Calliberation of Fixed gas detector sensors

Long Description :

To calliberate the fixed gas detector snesors and the equipment

QQ-007 Caliberation of the E/R pressure & temperature gauges Calliberating equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-007-01	Shipyard Supply Costs		Per set	No

Short Description :

Caliberation of the E/R pressure & temperature gauges Calliberating equipment

Long Description :

Arrange for the calliberation of the equipment used on board for the calibration of pressure and temperature gauges.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-007-02	Shipyard Supply Costs			No

Short Description :

Manifold pressure gauge calibration

Long Description :

8 sets

QQ-009 Sewage Treatment Plant

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
QQ-009-01	Shipyard Supply Costs			No

Short Description :

Cleaning of sewage treatment plant

Long Description :

All the chambers to be opened up and thoroughly flushed and cleaned. Internal coating to be inspected.

RR : SAFETY EQUIPMENT

RR-001 Lifeboat

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-001-01	Shipyard Supply Costs		Per set	No

Short Description :

Life boat servicing

Long Description :

Job scope :
1. Removal and refitting of the lifeboat
2. Air cylinders to be serviced, pressure tested.
3. The air control system regulators and pressure gauges to be calibrated.
4. On load release gear and lifeboat load test.
5. Sprinkler system to be tested.

Provide for staging, access lighting, mobile carnage, material equipment and tools and accessory works.
MAKE-NISHI-F CO,LTD, TYPE-TOTALLY ENCLOSED F.R.P LIFEBOAT(CML-19S)
QTY-2 (SERIAL NO-6331,6332)

Quote Price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-001-02	Shipyard Supply Costs		Lumpsome	No

Short Description :

Labor & Staging for Lifeboat Inspection

Long Description :

Yard to provide labor and staging to Owners contractors for the lifeboat servicing.

RR-002 Lifeboat Davits

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Lifeboat davits Inspection and Complete O'haul

Long Description :

Job scope:
1. Both lifeboats wires to be renewed /changed end to end.
2. Life boat davits dynamic load test.
3. Davit winch and brake assembly to service.
4. Gear box to inspect and the old oil to be drained out and refilled with owners supply.
5. All sheaves, hinge pins, teflon rollers, limit switches to be O'hauled.
6. Davit structure to be derusted and painted. Any structural damage to be repaired.
7. Hydraulic motor and aggregate to be O'hauled

Provide for staging, access lighting, mobile carnage, material equipment and tools and accessory works.

Quote Price.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-002-03	Shipyard Supply Costs		Lumpsome	No

Short Description :

Labor & Staging for Lifeboat Davit Inspection

Long Description :

Yard to provide labor and staging to Owners contractors for the lifeboat servicing.

RR-003 Rescue Boat

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-003-01	Shipyard Supply Costs		Per set	No

Short Description :

Rescue boat servicing

Long Description :

Job scope :
1. Removal and refitting of the lifeboat
2. Air cylinders to be serviced, pressure tested.
3. The air control system regulators and pressure gauges to be calibrated.
4. On load release gear and lifeboat load test.
5. Sprinkler system to be tested.

Provide for staging, access lighting, mobile carnage, material equipment and tools and accessory works.

Quote Price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-003-02	Shipyard Supply Costs		Lumpsome	No

Short Description :

Labor & Staging for Rescue Boat Servicing

Long Description :

Yard to provide labor and staging to Owners contractors for the lifeboat servicing.

RR-004 Rescue boat davit Inspection

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-004-01	Shipyard Supply Costs		Per set	No

Short Description :

Rescue Boat davit Inspection & Complete O'haul

Long Description :

Job scope:
1. lifeboat wires to be renewed /changed end to end.
2. Life boat davits dynamic load test.
3. Davit winch and brake assembly to service.
4. Gear box to inspect and the old oil to be drained out and refilled with owners supply.
5. All sheaves, hinge pins, limit switches to be O'hauled.
6. Davit structure to be derusted and painted. Any structural damage to be repaired.
7. Hydraulic motor and aggregate to be O'hauled.

Provide for staging, access lighting, mobile carnage, material equipment and tools and accessory works.

Quote Price.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-004-02	Shipyard Supply Costs		Lumpsome	No

Short Description :

Labor and staging for Rescue Boat davit inspection

Long Description :

Yard to provide labor and staging to Owners contractors for the lifeboat servicing.

RR-005 Fire Detection equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-005-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Fire detection equipment servicing

Long Description :

Job Scope: Servicing and repairs if required on the Fire detection equipment.

Quote Price.

RR-006 Fire Fighting equipment

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-01	Shipyard Supply Costs		Per unit	No

Short Description :

6 Kgs Dry Chemical portable extinguishers

Long Description :

Dry Powder portable extinguishers .....6 Kgs
Total numbers on board.....

To be fully serviced and extinguishers labelled.
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-02	Shipyard Supply Costs		Per Unit	No

Short Description :

Dry Powder portable extinguishers ..9 Kgs

Long Description :

Dry Powder portable extinguishers .....9 Kgs
Total numbers on board.....

To be fully serviced and extinguishers labelled.
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-03	Shipyard Supply Costs		Per set	No

Short Description :

Dry Powder portable extinguishers .....40 Kgs

Long Description :

Dry Powder portable extinguishers .....40 Kgs
Total numbers on board.....

To be fully serviced and extinguishers labelled.
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-04	Shipyard Supply Costs		Per Unit	No

Short Description :

Chemical Foam Portable Fire extinguishers..9 Ltrs

Long Description :

Total numbers on board.....

To be fully serviced and extinguishers labelled.
Certificate to be issued
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-05	Shipyard Supply Costs		Per Unit	No

Short Description :

Chemical Foam portable Fire extinguisher..40 Ltrs

Long Description :

Total numbers on board.....

To be fully serviced and extinguishers labelled.
Certificate to be issued
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-06	Shipyard Supply Costs		Per unit	No

Short Description :

Chemical Foam Portable extinguisher 45 Ltrs

Long Description :

Total numbers on board.....

To be fully serviced and extinguishers labelled.
Certificate to be issued
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-07	Shipyard Supply Costs		Per unit	No

Short Description :

CO2 portable fire extinguishers.. 5 kgs

Long Description :

Total numbers on board.....

To be fully serviced and extinguishers labelled.
Certificate to be issued
Pressure test to be carried out if required.

Quote price /extinguisher

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-08	Shipyard Supply Costs		Per set	No

Short Description :

CO2 system full servicing/Blow thru the lines

Long Description :

Total numbers on board.....

To be fully serviced and bottles to be labelled.
Certificate to be issued

Pressure test to be carried out if required.

Quote price /set

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-09	Shipyard Supply Costs		Per set	No

Short Description :

EEBD sets service

Long Description :

Total numbers on board.....

To be fully serviced and EEBDs to be labelled.
Certificate to be issued
Pressure test to be carried out if required.

Quote price /set

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-10	Shipyard Supply Costs		Per set	No

Short Description :

SCBA cylinders Service and pressure test

Long Description :

Total numbers on board.....

To be fully serviced & pressure test to be carried out and cylinders to be stamped with pressure test date.
Certificate to be issued

Quote price /set

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-13	Shipyard Supply Costs		1	No

Short Description :

Deck foam system- foam tank cleaning and all the valves to be overhauled or renewed

Long Description :

Foam tank to be emptied in to empty drums and then to fully clean the tank. tank internal condition to be inspected and damaged areas to be applied with the coating.
All the valve in the faom tank line to be removed, overhauled and fitted back after pressure testing.
If required valves to be renewed.
Once the tank is dried out and valves are fitted back, foam tank to be re filled with the foam concentrate from the drums.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-006-14	Shipyard Supply Costs		1	No

Short Description :

ER foam fire fighting system(high expansiion/hot foam)
foam tank cleaning and all the valves to be overhauled or renewed

Long Description :

Foam tank to be emptied in to empty drums and then to fully clean the tank. tank internal condition to be inspected and damaged areas to be applied with the coating.
All the valve in the faom tank line to be removed, overhauled and fitted back after pressure testing.
If required valves to be renewed.
Once the tank is dried out and valves are fitted back, foam tank to be re filled with the foam concentrate from the drums.

RR-009 Insulation Lagging in Engine Room

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-009-01	Shipyard Supply Costs			No

Short Description :

Engine room Insulation lagging renewal

RR-010 Welding of Lifting Pad eye in E/R Emergency escapre space

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-010-01	Shipyard Supply Costs			No

Short Description :

Welding of Lifting Pad eye in E/R Emergency escapre space

RR-011 Gas tight Suit to Service

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
RR-011-01	Shipyard Supply Costs			No

Short Description :

Gas tight Suit to service

Long Description :

To quote for annual servicing of Gas tight suits per piece.

SS : MAIN ENGINE

SS-001 Main Engine Deflection

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-001-01	Shipyard Supply Costs		Per set	No

Short Description :

Main Engine Deflection

Long Description :

Provide labour material and tools , access lighting, staging and ventilation for taking the main engine deflections.

1. On arrival at the shipyard
2. On completion of repairs at the yard.

Crankcase doors to be opened/closed by yard.

Quote Price.

SS-002 Main Engine Bearings

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Cross Head Bearings and the Pins

Long Description :

Number of sets to open up.....

Clearances to record before opening and inspect the journal for any damage.
The bearings to be presented to class surveyor and after confirmation to be boxed back.

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks & other equipment required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-002-02	Shipyard Supply Costs		Per Set	No

Short Description :

Crank Pin bearings & journal

Long Description :

Number of sets to open up.....

Clearances to record before opening and inspect the journal for any damage.
The bearings to be presented to class surveyor and after confirmation to be boxed back.

Provide material, labour, staging, access lighting, chain blocks,wire slings, hyd jacks & other equipment required

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-002-03	Shipyard Supply Costs		Per set	No

Short Description :

Main bearings and main journal

Long Description :

Number of sets to open up.....

Clearances to record before opening and inspect the journal for any damage.
The bearings to be presented to class surveyor and after confirmation to be boxed back.

Provide material, labour, staging, access lighting, chain blocks , wire slings, hyd jacks & other equipment required

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-002-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Thrust shaft and bearing pads

Long Description :

Clearances to record before opening and inspect the journal for any damage.
The bearings to be presented to class surveyor and after confirmation to be boxed back.

Provide material, labour, staging, access lighting, chain blocks,wire slings, hyd jacks & other equipment required

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-002-05	Shipyard Supply Costs		Per Pc	No

Short Description :

Intermediate shaft bearing

Long Description :

Clearances to record before opening and inspect the journal for any damage.
The bearings to be presented to class surveyor and after confirmation to be boxed back.

Provide material, labour, staging, access lighting, chain blocks,wire slings, hyd jacks & other equipment required

SS-003 Main Engine Fuel Injection Pump overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-003-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of the fuel pumps

Long Description :

Number of sets to open up.....

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks & other equipment required

Job scope:
To dismantle and take ashore all the fuel pumps(.....Nos) ,overhaul and renew the spare wherever required.
Before renewal to be approved by vessel supdt.
Remove fuel pumps roller guide and reversing mechanism,clean,check condition,dismantle guide pins,measure clearances of roller guide,guide block and reversing mechanism and fit back.
Installation after transporting back to the vessel to be done and fuel pump timings to be checked and adjusted as per the sea trial values(To be taken from C/E)

Spare Parts: Owners supply

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-003-03	Shipyard Supply Costs		lumpsum/pc	No

Short Description :

ME Engine- Fuel Booster Unit Overhaul

Long Description :

Engine Type - 5S 60 ME-B9.2

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks & other equipment required

All units Fuel Booster units to be removed , after disconnecting the Fuel and hydraulic piping. Complete unit to be dismantled , cleaned and plunger/barrel calibrated . Top cover suction valve to remove, inspect and Overhaul .
All O-rings gasket to renew and assemble back and instal in place.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-003-04	Shipyard Supply Costs		Lumpsum	No

Short Description :

ME Engine - ELFI/FIVA Valve Overhaul.

Long Description :

Main Engine :

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks & other equipment required

Job Scope- Complete ELFI valve assy to be removed and shifted to a clean workbench for inspection of the Hydraulic components. The Main spool valve to be inspected for any wear/tear and fixed back . ELFI feed back calibration to be carried out by attending MAN Service engineer after installation in place.

Please quote lumpsum cost for one unit.

SS-004 Main Engine Turbocharger

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-004-01	Shipyard Supply Costs		Per set	No

Short Description :

Main Engine T/charger Overhaul

Long Description :

Number of sets to open up.....

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks & other equipment required.
Complete overhaul of the T/charger as per the specs above.

Spare Parts: Owners Supply

SS-006 Main Engine Governor Control System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-006-01	Shipyard Supply Costs		Per set	No

Short Description :

Governor control system Service.

Long Description :

Job scope:
Main engine governor control system to be serviced by makers representative including actuator pulse generator Actuator drive servo driver etc .
Including emergency shut down and over ride functions.

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks, transportation to and from the vessel & other equipment required.

SS-007 Main Engine Scavenge Blowers

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-007-01	Shipyard Supply Costs		Per set	No

Short Description :

Scavenge blowers overhaul

Long Description :

Nos of sets to be overhauled.....
Main engine scavenge air blowers are to be removed from the engine and transported ashore.

The electric motors are to be fully overhauled and new bearings installed.

The fans are to be cleaned and dynamically balance and checked for any cracks.

Bearings are owners supply

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks, transportation to and from the vessel & other equipment required.

SS-008 Main Units Overhauling

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-008-01	Shipyard Supply Costs		Per Unit	No

Short Description :

M/E unit Overhaul

Long Description :

Job Scope: As per the description.
Spare parts owners supply.

Allow for staging, access lighting, ventilation, transportation to & from shore workshop, carnage.

Quote Price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-008-02	Shipyard Supply Costs		Per set	No

Short Description :

Overhaul Piston

Long Description :

Job Scope:
To remove piston crown. Dismantle Piston. Piston crown to be sent to the owner's appointed workshop for repairs. Bottom end serration's to be dye-checked for cracks. Piston to be pressure tested. Upon completion of repair, this to be inspected by Class surveyor.
Bring back to the vessel and assemble with new spares from owners supply.

Provide labour, material. staging, access lighting, ventilation, transportation to and from ashore and other accessory jobs.

Quote Price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-008-03	Shipyard Supply Costs		Per Pc	No

Short Description :

To Extract and install Liners

Long Description :

Job Scope:
To extract and install liners with spares supplied by owner. After installation, liner to be inspected by Class.
Liner calibration to be done after installation.

Provide labour,material equipment,staging,cranage, access lighting, ventilation and other accessory equipment and tools if required.

Quote/Pc

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-008-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of Cylinder Cover & mountings

Long Description :

Job Scope:
Cylinder head to lift clear of the engine and then transfer to shore workshop for cleaning, inspection and repair accordingly. All head valve seat pockets to thoroughly cleaned, lapped in and inspected for damage. Underside of cylinder head to dye check for detection of crack. Cylinder head cooling water jacket to remove and then refit for changing of the o-rings. Upon completion, cylinder head then return onboard and refit back in place with owner supplied o-rings and soft iron ring. Proper tightening pressure to apply for tightening of cylinder head and exhaust valve as per maker recommendation. Reinstall back all head valves and reconnect back all connections to original with yard supplied new jointings..

SS-010 Main Engine Hydraulic System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-010-02	Shipyard Supply Costs		Lumsum	No

Short Description :

Hydraulic System Accumulator Overhaul

Long Description :

Main Engine - 5S 50ME-B

All 3 Accumulator unit on HCU and 1 accumulator unit on HPS to be removed from place, dismantled, Diaphragm membrane replaced with Owner supplied spares. All accumulators to be assembled and installed back in place and Nitrogen pressure charged to rated pressure as per Manual.
Please quote lumpsum for 4 units.

SS-011 Main Engine Electronic control System

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-011-01	Shipyard Supply Costs			No

Short Description :

Main Engine Electronic control system

Long Description :

Job scope:
1. All control valves and angle encoders to be opened up and inspected. Cables and Connections are to checked for healthy condition.
2. Multi Purpose Controllers in CCU, ACU, ECU and EICU panels are to be inspected for satisfactory operation.
3. Amplifiers are to be removed and inspected.
4. Batteries are to be checked and renewed if required.

SS-012 Main Engine Air cooler cleaning.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
SS-012-01	Shipyard Supply Costs			No

Short Description :

Main Engine Scavenge Air Cooler to be Overhauled

Maker : VESTAS AIRCOIL.
Type : KKMY 20 - 30J4 - T -EK9471

Long Description :

Nos of coolers..... 1

To overhaul –
Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,include removal of top platform and plates, pipes coming in way of removing the cooler from its place.
Remove all the pipes and remove from Engine Room to workshop, clean, inspect and pressure test.
Superintendent / Chief Engineer to witness the pressure test .
The zinc anodes to be renewed from yard supply. End covers to be cleaned and paint with Apexior paint.
Transport back to ship and install.
All the removed fittings to be put back in place.

Quote Price.....

TT : AUXILIARY BOILERS

TT-001 Cascade Tank

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-001-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Additional filters/gauge glass to hot well

Long Description :

Quote as per the description.
1. Fabricate one additional filter for Hot Well according with sketch.

2. Existing Hot Well to be modified to accommodate filter cages. The construction of support to be made from angle and t-bars to be welded into second chamber of Hot Well according to attached drawing and procedure. New filter cages to be made according to drawing to be inserted into the support in Hot Well to allow water from "Oil separation chamber" pass through filtering material.

3. Gauge glass to be fabricated and installed on hotwell to allow remote inspection of water level. Light fitting to be fitted behind.
(See sketch)

Allow for the access lighting, staging, ventilation, labour material and equipment, hot work permit, safety watch

Allow to install using new gaskets and bolts
Allow to pressure test .

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-001-02	Shipyard Supply Costs		Lumpsum	No

Short Description :

Cascade tank Cleaning and coating with Epoxy .

Long Description :

Cascade tank to open up,drain the water and clean interior .
After cleaning,tank to be coated with Epoxy paint.
Tank to be closed using new gaskets, bolts and nuts.

TT-002 Aux Boiler Survey

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Aux Boiler water & steam spaces cleaning

Long Description :

Manhole doors upper & lower 304 x 404, check, packing replace x 2 pc.
Boiler Inspection of water tubes, water and stream spaces chemical circulation-cleaning to be carried out and on completion water spaces HP washed with Fresh water..
Boiler furnace to be opened burner and fittings to remove, gas space inspection to be carried out and the gas tubes and walls to be HP washed all water residue to be disposed, on completion cleaning boiler to be presented for class survey,

Quote/set

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-02	Shipyard Supply Costs		Per set	No

Short Description :

Burner removal & fitting

Long Description :

Boiler burner assembly to be removed to have the access to the furnace.

Quote for removal and fitting

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-03	Shipyard Supply Costs		Per time/lumpsum	No

Short Description :

Boiler Pressure test

Long Description :

After completion of the fitting of all the manhole doors and the mountings, the boiler to be subjected to pressure test of minimum as working pressure.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-04	Shipyard Supply Costs		Per Kg	No

Short Description :

Refractory repair

Long Description :

Where refractory is damaged this is to be removed and yard supply refractory installed
Allow for 50 KG.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-05	Shipyard Supply Costs		Per sq meter	No

Short Description :

Renewal of insulation on boiler external casing

Long Description :

Boiler external casings and insulation to renew
Allow 20 m2

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-06	Shipyard Supply Costs		Per sq meter	No

Short Description :

Renewal of Galvanized steel plate

Long Description :

Allow for 10 m2 plate renewal.
Allow for staging, access lighting, ventilation, labour, material for the accessory work.
The rivets to be yard supply including the riveting machine.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-07	Shipyard Supply Costs		Per set	No

Short Description :

Boiler mountings valves and gauge glasses overhaul

Long Description :

Safety valves.....2 sets
Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-002-08	Shipyard Supply Costs		Per Pc	No

Short Description :

Boiler mounting valves Overhaul

Long Description :

List all type of valves and dimensions.

Type:
Number of valves:

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

TT-004 Exhaust gas economiser

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-004-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Cleaning of the exhaust gas economiser

Long Description :

Exhaust gas economizer to be clean, inspect and present for survey.
Allow for access staging, access lighting, ventilation, high pressure equipment, labour.
Allow for the disposal of the black water with soot to ashore. Allow for 2 MTs of brackish water disposal.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-004-02	Shipyard Supply Costs		Per pc	No

Short Description :

Overhaul of Safety valves

Long Description :

valves to be removed ashore, overhaul and pressure tested to the specific pressure,brought back and installed.
Popping test required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-004-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Mountings valves overhaul. Air Vent valve

Long Description :

Air vent valve to be Removed to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-004-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Soot blowers overhaul

Long Description :

Type:
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

TT-005 Steam Valves for Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of Cargo heating steam valve DN 200

Long Description :

Type:

Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-02	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of the steam line valves DN100

Long Description :

Type: DN 100
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-03	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of steam valves DN 80

Long Description :

Type: DN 80
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-04	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of steam valve DN 50

Long Description :

Type: DN 50
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-05	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of steam valve DN40

Long Description :

Type: DN 40
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
TT-005-06	Shipyard Supply Costs		Per Pc	No

Short Description :

Overhaul of the steam valve DN25

Long Description :

Type: DN 25
Number of valves.....

Removal to workshop & back to vessel after overhaul .
Allow for machining if reqd.

UU : AUXILIARY DIESEL ENGINE

UU-001 Aux Diesel engine overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-001-01	Shipyard Supply Costs		Per Set	No

Short Description :

Aux Engine Overhaul

Long Description :

Number of engines to overhaul.....

Yard to provide labour ,material, staging, access lights, ventilation, transportation from and to the vessel and other accessory jobs involved.

Spares: Owners supply

Quote Price/Aux Engine
Job Scope:
Besides overhauling of cylinder heads, pistons, liners, Yard will ensure that below job scope is included as part of the overhauling report;
1. Report of Visual/DP examination of the con rod bolts especially those sections which are prone to fatigue cracks. These are the serrations in the bottom end bearings housings.
2. Bolt tightening should be followed as per the makers instructions and in the presence of Chief Engineer/Supdt. The instructions should be clear to the ship staff to ensure check on tightening after 100 hours running of the engine.
3. The condition of the attached CW /LO pumps should be reported in the report form.
4. Condition of the filters be also reported along with damages if any.
5. Holding down bolts tightening: Crank web deflection should be taken before the holding down bolts tightening and the readings analysed. The deflection should be taken again and analysis done again. This should be included in the aux engine report. If any abnormality noticed in the analysis,it should be brought to the notice of Supd/Chief Engineer.
6. The cooling water spaces in the head should be descaled chemically along with jacket.
7. A/E Performance should be taken before and after the complete overhaul and the parameters compared to assess the improvement in the performance.

UU-002 Aux Diesel Engine's Governors

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-002-01	Shipyard Supply Costs		Per Set	No

Short Description :

Aux Engine Governor Overhaul

Long Description :

Number of Governors to overhaul.....

Job Scope:
The governors of auxiliary engines 3 units to overhaul, and test . Test to witness by chief engineer. The following parts are require to renew at every 10000 hrs or 2~3 years.
Spares : Owners supply

Quote price.....

UU-003 Aux Diesel Engine's Control and alarm systems

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-003-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Aux Diesel Engine's Control and alarm systems

Long Description :

Job Scope:
The auxiliary engines control and alarm systems to be calibrated and checked for compliance to makers recommended values.
Allow for 6 pressure transmitters /engine and 4 temperature transmitters.

Quote price.....

UU-004 Aux Diesel Engine's Coolers

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-004-01	Shipyard Supply Costs		Per Set	No

Short Description :

Aux Diesel Engine's Coolers

Long Description :

Number of coolers.....
Job Scope:

The auxiliary engines lubricating oil, jacket water and scavenge air coolers are to be removed ashore chemically cleaned and pressure tested.

End covers where fitted to be descaled and painted with epoxy anodes to renew (yard supply).

If plate cooler new seals will be owners supply.

Quote price.....

UU-005 Aux Engines Turbochargers overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-005-01	Shipyard Supply Costs		Per set	No

Short Description :

Aux Engines T/chargers Overhauling

Long Description :

A/Es Turbochargers to be opened up and overhauled.
All the required clearances to be measured and recorded.
All the worn out parts to be renewed from owners supply.

Note: Since the yard will also be cleaning the air coolers along with T/Ch overhaul, it is suggested that T/Ch overhaul report should also be referenced along with air cooler report

Make:
Type:
Total Numbers of T/chs:

UU-006 Aux Engine exhaust trunking bellow insulation repair

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-006-01	Shipyard Supply Costs		PC	No

Short Description :

A/E 2 Exhaust trunking bellow insulation repair.

Bellow size: DN 300.
Insulation material: Rock wool.
Outer insulation covering: 0.5 mm Galvanized steel sheet.
Qty: 1

Long Description :

The Internal Rock wool insulation is to be renewed basis requirement, and covered with wire net.
Outer insulation covering to be wound with galvanized steel sheet of 0.5 mm.

Quote for 3 m2 plate renewal.

UU-008 Aux Engine No.1 Counter Balance Shaft Renewal.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
UU-008-01	Shipyard Supply Costs			No

Short Description :

Aux Engine No.1 Counter Balance Shaft Renewal.

Engine Maker: Wartsila.
Model: A4L20

Long Description :

Job Scope:

1. The engine piping connections to be removed. The engine to be disconnected from alternator.
2. The foundation bolts to be removed.
3. The complete engine, along with the running gear to be lifted. Suitable lifting eyes to be available. Job – does not involve overhauling of the running gear. Lifting gear and special tools to be available on board.
4. The old balance shaft complete assembly to be removed and installed with new complete spare assembly.
5. Engine to be located back and all connections to be fitted back.
6. Engine to be tested to the satisfaction of the C/E.

VV : ALTERNATORS AND SWITCHBOARDS,ELECTRIC MOTORS AND STARTERS

VV-001 Main Switch Board's Instruments

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-001-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Main Switch Board's Instruments
Emergency Switch Board's Instruments

Long Description :

Job Scope:
The following switchboard meters are do be disconnected and sent to the workshop for calibration and test.
Approved certificates to be issued and meter stamped.
Power meter - 4 pc
Voltmeter - 10 pc
Ammeter - 8 pc
Ohmmeter – 3 pc

Quote price.....

VV-002 Main Switchboard Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-002-01	Shipyard Supply Costs		Per Set	No

Short Description :

Main Switch Board

Long Description :

Job scope:
Provide labour and material, access lighting, necessary tools and equipment.
The main switch board is to be opened, and clean of all dust and debris.
The main connector s in the switchboard is to be checked and tightened.
All contactors and switches are to be examined, and insulation on cable
To be checked, for arcing or tracking. Any joints found loose or rusting are to be removed cleaned and tinned to prevent further deterioration.

There are three main breakers, each of 963 APM-rating, and these are to be removed to shore workshop and check preferential trip, reverse power, and overload trips are to be checked.
The mechanical interlocks and the above trips are to be checked and calibrated according to the maker's recommendations and necessary reports issued.
The breaker is to be tested prior to re-install onboard to the satisfaction of the class rules.
Trips are to be checked prior to any alterations to check operating set point.

Quote price.....

VV-003 Electrical Motors

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-01	Shipyard Supply Costs		Per Set	No

Short Description :

Engine room fan motors overhaul:

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Engine Room Fan Motor with impeller to remove from location and shift to Yard shop .
Impeller to be cleaned and DP tested for any cracks and dynamic balancing to carry out and witnessed by Ch . Engr.
Motor to be overhauled, bearings renewed , winding cleaned and varnished . Complete assembly to be fixed back , connections made and tested to satisfaction of ship staff.
Allow for machining/welding of the bearing housing.

Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-02	Shipyard Supply Costs		Per Set	No

Short Description :

Incinerator fan motor overhaul

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, DP crack checking of Impeller, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.

Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-03	Shipyard Supply Costs		Per set	No

Short Description :

Pump Room Fan motor overhaul

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, DP Crack check of the impeller, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.

Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-04	Shipyard Supply Costs		Per set	No

Short Description :

Main Engine Aux Blower motor overhaul

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Main Engine Aux Blower Fan Motor with impeller to remove from location and shift to Yard shop .
Impeller to be cleaned and DP tested for any cracks and dynamic balancing to carry out and witnessed by Ch . Engr.
Motor to be overhauled, bearings renewed , winding cleaned and varnished . Complete assembly to be fixed back , connections made and tested to satisfaction of ship staff.
Allow for machining/welding of the bearing housing.

Allow for machining/welding of the bearing housing.

Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-05	Shipyard Supply Costs		Per set	No

Short Description :

Boiler Draft Fan motor overhaul

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Boiler FD Fan Motor with impeller to remove from location and shift to Yard shop .
Impeller to be cleaned and DP tested for any cracks and dynamic balancing to carry out and witnessed by Ch . Engr.
Motor to be overhauled, bearings renewed , winding cleaned and varnished . Complete assembly to be fixed back , connections made and tested to satisfaction of ship staff.
Allow for machining/welding of the bearing housing.

Allow for machining/welding of the bearing housing.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-06	Shipyard Supply Costs		Per Set	No

Short Description :

Galley Vent fan motor overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, DP crack test of the impeller, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-07	Shipyard Supply Costs		Per Set	No

Short Description :

Deck Air compressor motor Overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-08	Shipyard Supply Costs		Per set	No

Short Description :

Main Engine LO pump motors

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.

Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-09	Shipyard Supply Costs		Per set	No

Short Description :

Aux Boiler primary fan motor Overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-10	Shipyard Supply Costs		Per Set	No

Short Description :

Sea Water Service Pump motor Overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-11	Shipyard Supply Costs		Per Set	No

Short Description :

FWG Ejector Pump motor overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-12	Shipyard Supply Costs		Per Set	No

Short Description :

Fire & GS Pump motor Overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-13	Shipyard Supply Costs		Per set	No

Short Description :

M/E cooling sea water Pump motor overhaul

Long Description :

Make:
Power:
RPM:
Volts:
Bearings :

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-14	Shipyard Supply Costs		PCS	No

Short Description :

Power cable renewal for terminal box for motor

Long Description :

Renewal of power cables connector in terminal box for pump motor.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-15	Shipyard Supply Costs			No

Short Description :

Ballast pump motor overhaul

Long Description :

Ballast pump motor overhaul

Ballast Pump motor:

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-16	Shipyard Supply Costs			No

Short Description :

Emergency Fire Pump Motor Overhaul

Long Description :

Specs:
Make:
Power:
RPM:
Volts:
Bearings :

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-17	Shipyard Supply Costs		Per Unit	No

Short Description :

LT Cooling water Pump

Note: Where the yard the unable to quote for specifiec motor give us your tariff rate basis motor KW and cost to include disconnection transport ashore and overhaul. Motors are to be cleaned, windings checked and varnished, bearings renewed. Motors are too returned onboard and tested. Impellers/ fans where fitted to be balanced

VESSEL POWER SUPPLY IS 440V/60HZ

Long Description :

Maker: DESMI
Motor: 3D 180 L-4 22/26,4KW+spacer heater
Power supply:El-motor 3 x 440V - 60Hz
RPM: 1776

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-18	Shipyard Supply Costs			No

Short Description :

HT Cooling water Pump Motor.

Note: Where the yard the unable to quote for specifiec motor give us your tariff rate basis motor KW and cost to include disconnection transport ashore and overhaul. Motors are to be cleaned, windings checked and varnished, bearings renewed. Motors are too returned onboard and tested. Impellers/ fans where fitted to be balanced

VESSEL POWER SUPPLY IS 440V/60HZ

Long Description :

Maker: DESMI
Motor: 3D 180 L-4 22/26,4KW+spacer heater
Power supply:El-motor 3 x 440V - 60Hz
RPM: 1776

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-19	Shipyard Supply Costs			No

Short Description :

Emergency Fire pump motor

Note: Where the yard the unable to quote for specifiec motor give us your tariff rate basis motor KW and cost to include disconnection transport ashore and overhaul. Motors are to be cleaned, windings checked and varnished, bearings renewed. Motors are too returned onboard and tested. Impellers/ fans where fitted to be balanced

VESSEL POWER SUPPLY IS 440V/60HZ

Long Description :

Maker: DESMI
Motor: 3D 180 L-4 22/26,4KW+spacer heater
Power supply:El-motor 3 x 440V - 60Hz
RPM: 1776

Job scope:
Dismantle, transport ashore, overhaul, renew the bearing, dynamic balancing to be witnessed by Ch Engineer, transport back to vessel ,install and test to the satisfaction of the ship staff.
Allow for machining/welding of the bearing housing.
Quote/set.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-003-20	Shipyard Supply Costs		2	No

Short Description :

Main Engine HPS pump motor

MOTOR
Electrical Motor: ABB MOTORS
Power: 440V/60Hz
43.0 kW
70.1A
POWER FACTOR: 0.86
RPM: 1775
BEARING: 6312 ZZ/C3 & 6210 ZZ/C3
INSULATION CLASS: F
IP: 55

Long Description :

Main engine HPS motor to be removed from the engine and transported ashore.

Quote for specific tariff rate basis motor KW. Motors are to be cleaned, windings checked and varnished, bearings renewed. Motors are too returned on board and tested
The fans are to be cleaned and dynamically balance.

Spider coupling and bearings to be supplied by owner.

Provide material, labour, staging, access lighting, chain blocks, wire slings, hyd jacks(if reqd), transportation to and from the vessel & other equipment required.

VV-004 Main Alternators

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
VV-004-01	Shipyard Supply Costs		Per set	No

Short Description :

Main Alternators overhaul

	Long Description : *Number of Alternators.....* *Job Scope:* *The alternator covers are to be opened and the alternator is to be chemical spray cleaned the rotor and staor clearances are to be checked and the initial insulation measured. Once the alternators have been thoroughly cleaned, then heating lamps are to be installed and the insulation of the stator and rotor monitored.* *All connections are to be checked and retightened as required.* *The covers are to be replaced and new filters are to be installed.* *All measurements are to be re-checked including alignment (crank deflection), rotor stator clearance.*

WW : AUXILIARY PUMPS

WW-001 Main sea water pumps Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-001-01	Shipyard Supply Costs		Per set	No

Short Description :

Main Sea water Pumps Overhaul

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken & spare parts or any repairs to be approved by attending supdt, if the casing is worn then the casings are to be blasted and glass flaked. new wear rings are to be fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-002 Main LO pumps overhauling

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Main LO pumps overhauling

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-003 Aux Sea water service pump overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-003-01	Shipyard Supply Costs		Per set	No

Short Description :

Aux Sea water service pump overhaul

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-004 Aux Boiler Feed water Pump

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-004-01	Shipyard Supply Costs		Per Set	No

Short Description :

Aux Boiler Feed water pump Overhaul

Long Description :

Make: Heishin
Type: WY-20XD
Capacity: 23 m3
Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-005 Boiler Circulating pump Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-005-01	Shipyard Supply Costs		Per Set	No

Short Description :

Boiler Water Circulating Pump #2 Overhaul

Long Description :

Make: Taiko Kikai Ind.
Type: EHC-51JX
Capacity: 7.5 m3
Number of Pumps.....1.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-006 Fire & G.S Pump + Vacuum Unit overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-006-01	Shipyard Supply Costs		Per Set	No

Short Description :

Fire & G.S Pump + Vacuum Unit

Long Description :

Make: Taiko Kikai Industries
Type: EMCE-200MD
Capacity: 220 m3/hr
Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-007 HFO Transfer pump

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-007-01	Shipyard Supply Costs			No

Short Description :

HFO transfer pump

Long Description :

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-008 MDO Transfer pump

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-008-01	Shipyard Supply Costs			No

Short Description :

MDO Transfer pump

Long Description :

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-009 Anti-Heeling pump

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-009-01	Shipyard Supply Costs			No

Short Description :

Anti-Heeling pump

Long Description :

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-010 LT COOLING WATER PUMP O'HAUL

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-010-01	Shipyard Supply Costs		PER PUMP	No

Short Description :

LT COOLING WATER PUMP

Long Description :

Make:
Type:
Capacity: m3/hr
Number of Pumps - 2

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken, if the pump is worn then the casings are to be blasted and glass flaked. The impeller is also to be rebuilt and checked for fit within the pump casing, new wear rings are to be manufactured and fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-012 Emergency Fire Pump Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-012-01	Shipyard Supply Costs			No

Short Description :

Emergency Fire Pump Overhaul

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken & spare parts or any repairs to be approved by attending supdt, if the casing is worn then the casings are to be blasted and glass flaked. new wear rings are to be fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-013 Bilge Pump Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-013-01	Shipyard Supply Costs		set	No

Short Description :

Bilge Pump to be overhauled

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken & spare parts or any repairs to be approved by attending supdt, if the casing is worn then the casings are to be blasted and glass flaked. new wear rings are to be fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-014 Sludge Pump Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-014-01	Shipyard Supply Costs		set	No

Short Description :

Sludge Pump to be overhauled

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken & spare parts or any repairs to be approved by attending supdt, if the casing is worn then the casings are to be blasted and glass flaked. new wear rings are to be fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

WW-015 Sewage Discharge Pump Overhaul

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
WW-015-01	Shipyard Supply Costs		Set	No

Short Description :

Sewage Discharge Pump to be Overhualed

Long Description :

Number of Pumps.....

Job scope:
The pump is to be removed ashore for complete overhaul and service.
Your tender is to include :-
Disconnection of electric motor and removal of same ashore for cleaning and balancing.
The pump complete is to be removed from the baseplate and the inlet and outlet pipe flanges are to be disconnected and the pump removed ashore to the workshop.
Once ashore the pump is to be opened and a full calibration of parts is to be taken & spare parts or any repairs to be approved by attending supdt, if the casing is worn then the casings are to be blasted and glass flaked. new wear rings are to be fitted. The pump is to be rebuilt and a test is to be carried out, to ensure the alignment is satisfactory, and the pump turning freely in the pump casing.
Pump to transport back and assemble in place. Motor to be replaced and connexion made and the pump tried out to the satisfaction of the ship staff.

Spares : Owners supply

XX : AUXILIARY EQUIPMENT HEATER/COOLERS

XX-001 Main Engine Scavenging Air Cooler

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-001-01	Shipyard Supply Costs		Per Set	No

Short Description :

Main Engine Scavenge Air Cooler to be Overhauled

Long Description :

Nos of coolers.....

To overhaul –
Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,pipes coming in way of removing the cooler from its place.
Remove all the pipes and remove from Engine Room to workshop, clean, inspect and pressure test.
Superintendent / Chief Engineer to witness the pressure test .
The zinc anodes to be renewed from yard supply. End covers to be cleaned and paint with Apexior paint.
Transport back to ship and install.
All the removed fittings to be put back in place.

Quote Price.....

XX-002 Drain Cooler

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-002-01	Shipyard Supply Costs		Per set	No

Short Description :

Drain Cooler Overhaul

Long Description :

Job Scope:

Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,pipes coming in way of removing the cooler from its place.
Steam Drain Cooler (Dumping Condenser) to be opened for CMS.
Clean steam and water side and than pressure test to be done.

Allow to dismantle cooler
Allow to clean all parts and check
Allow to fitted and pressure test
Allow for new steam gaskets/Sea water jointing.

Quote price .....

XX-003 Fuel Oil Fine Filter (casing)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-003-01	Shipyard Supply Costs		Per set	No

Short Description :

Fuel Oil Filter casing Repair

Long Description :

Job Scope:
Fuel oil fine filters casing cracks and heating agent (steam) leak.
Filter should be removed, transport to the workshop cleaned and repaired.
Allow for removing and cleaning on/around
Allow to transport to workshop
Allow to pressure test after repair complete
Allow to fixed back on system

Quote price

XX-004 Incinerator Refractory

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-004-01	Shipyard Supply Costs		Per time	No

Short Description :

Incinerator Refractory damage repair

Long Description :

Job Scope:
Allow for removing and cleaning on/around the access of burner on the side of Incinerator
Allow to fabricate new refractory on/around the combustion chamber of Incinerator
Allow to reassembling of burner and accessories some as original condition
Allow for access lighting,staging if reqd, ventilation.

Quote price

XX-005 Main Engine Fuel Oil heater

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-005-01	Shipyard Supply Costs		Per Set	No

Short Description :

Main Engine FO Heater Overhaul

Long Description :

Make:
Type:

To overhaul –
Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,pipes coming in way of removing the cooler from its place.
Remove all the pipes and remove from Engine Room to workshop, clean, inspect and pressure test.
Superintendent / Chief Engineer to witness the pressure test .

XX-006 Aux Engine FW Cooler

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-006-01	Shipyard Supply Costs		Per Set	No

Short Description :

Aux Engine FW cooler Overhaul

Long Description :

Make:
Type:

To overhaul –
Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,pipes coming in way of removing the cooler from its place.
Remove all the pipes and remove from Engine Room to workshop, clean, inspect and pressure test.
Superintendent / Chief Engineer to witness the pressure test .

XX-007 LO Purifier Heater

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-007-01	Shipyard Supply Costs		Per set	No

Short Description :

LO Purifier Heater Overhaul

Long Description :

Make:
Type:
To overhaul –
Provide labour,material, staging, access lighting, cranage, transportation to and from ashore workshop,
Yard to clear all the structures,floor plates,pipes coming in way of removing the cooler from its place.
Remove all the pipes and remove from Engine Room to workshop, clean, inspect and pressure test.
Superintendent / Chief Engineer to witness the pressure test .

XX-008 Flame arrestor wire mesh for Exhaust uptakes

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-008-01	Shipyard Supply Costs		Per Pc	No

Short Description :

Flame Arrestor wire mesh on exhaust uptakes

Long Description :

Below exhaust uptakes to be repaired or renewed as necessary;
1. Aux Boiler
2. Main Engine
3. Incinerator
4. A/E-1
5. A/E-2
6. A/E-3
Material: SUS 304 mesh with 19 mms aperture and 2.5 mms wire size.
Support rings: Flat bar 50 mm x 3 mm

Allow for tower staging 20 mtr high, carnage, transportation.

XX-009 Installation of electric pre heater for M/E jacket water.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-009-01	Shipyard Supply Costs		lumpsum	No

Short Description :

Installation of Electric Jacket water Pre heater for Main engine

Long Description :

To install owner supplied electric pre heater for M/E Jacket water as per the below specs;
MS Pipe 40A Sch 40 ..... 4 Mtrs
Flanges: 40A 8
Bends 90 deg 2
Isolation valve: 5K40 2
Insulation to be provided on all hot surfaces about 4 mtrs
Allow for access,lightening,hot work permit,transportation equipment and tools required to complete the job

XX-013 Central cooler

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-013-01	Shipyard Supply Costs		2	No

Short Description :

Central Cooler

SONDEX A/S
Type: Plate type heat exchanger.
Model: S86 IS-06

Long Description :

Nos of Plate: 238.

Before dismantling, the tightening frame length to be measured for reference.
Cooler to dismantle and plate removed for mechanical/chemical cleaning.
All plates to be inspected for any deformation along the channel passes.
All gaskets to be inspected and renew the damage ones with owner supply spares.
Cooler to be boxed against the reference frame length and proof leak free.

XX-014 Main Lube Oil Cooler

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
XX-014-01	Shipyard Supply Costs		2	No

Short Description :

Main Lube oil cooler.

Maker: SONDEX A/S.
Type: Plate Type cooler.
Model: S100TY-IS06-186-TKTYL31

Long Description :

Nos of Plate: 186

Before dismantling, the tightening frame length to be measured for reference.
Cooler to dismantle and plate removed for mechanical/chemical cleaning.
All plates to be inspected for any deformation along the channel passes.
All gaskets to be inspected and renew the damage ones with owner supply spares.
Cooler to be boxed against the reference frame length and proof leak free.

YY : ENGINE ROOM PIPELINES

YY-001 ER Pipe Lines Renewals

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

FW Gen Sea water inlet pipe

Long Description :

Specs:

Carbon Steel 80A Sch 80
Length: 1 mtr
Elbow 90 deg : 1
Flange- JIS 80A 5K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-02	Shipyard Supply Costs		lumpsum	No

Short Description :

FW Generator Outlet pipe

Long Description :

Specs:

Carbon Steel 80A Sch 80
Length: 1 mtr
Elbow 90 deg : 1
Flange- JIS 80A 5K-4

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-03	Shipyard Supply Costs		lumpsum	No

Short Description :

Cooling Sea water suction pipe

Long Description :

Specs:

Carbon Steel 150A Sch 80
Length: 1 mtr
Elbow 90 deg : 0
Flange- JIS 150A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-04	Shipyard Supply Costs		lumpsum	No

Short Description :

Cooling Sea water discharge pipe

Long Description :

Specs:

Carbon Steel 150A Sch 80
Length: 1 mtr
Elbow 90 deg : 0
Flange- JIS 150A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-05	Shipyard Supply Costs		Lumpsum	No

Short Description :

Aux engine Cooling Sea water pump suction line

Long Description :

Specs:

Carbon Steel 100A Sch 80
Length: 1 mtr
Elbow 90 deg : 1
Flange- JIS 100A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Ejector pump suction Line

Long Description :

Specs:

Carbon Steel 80A Sch 80
Length: 1 mtr
Elbow 90 deg : 0
Flange- JIS 80A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-07	Shipyard Supply Costs		Lumpsum	No

Short Description :

Drain cooler Sea water outlet pipe

Long Description :

Specs:

Carbon Steel 100A Sch 80
Length: 2 mtr
Elbow 90 deg : 2
Flange- JIS 100A 10K-4

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-08	Shipyard Supply Costs		Lumpsum	No

Short Description :

Main Engine scav. Air Cooler SW inlet pipe

Long Description :

Specs:

Carbon Steel 150A Sch 80
Length: 1 mtr
Elbow 90 deg : 1
Flange- JIS 150A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-09	Shipyard Supply Costs		Lumpsum	No

Short Description :

ME scav air cooler SW outlet pipe

Long Description :

Specs:

Carbon Steel 150A Sch 80
Length: 1 mtr
Elbow 90 deg : 0
Flange- JIS 150A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-10	Shipyard Supply Costs		lumpsum	No

Short Description :

High sea suction chest vent pipe

Long Description :

Specs:

Carbon Steel 40A Sch 160
Length: 100 mms
Elbow 90 deg : 0
Flange- JIS 40A 10K-1
Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.
Pipe to be welded from both sides.
Job to be carried out only while vessel is in drydock.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-11	Shipyard Supply Costs		Lumpsum	No

Short Description :

High Sea chest pipe to MGPS

Long Description :

Specs:

Carbon Steel 40A Sch 160
Length: 3 mtr
Elbow 90 deg : 0
Flange- JIS 40A 10K-6
Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-12	Shipyard Supply Costs		Lumpsum	No

Short Description :

A/E-1 Sea water Cooling inlet pipe

Long Description :

Specs:

Carbon Steel 65A Sch 80
Length: 2.8 mtr
Elbow 90 deg : 1
Flange- JIS 65A 10K-2

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-13	Shipyard Supply Costs		Lumpsum	No

Short Description :

Fire & GS suction from clean drain tank & cofferdam

Long Description :

Specs:

Carbon Steel 40A Sch 80
Length: 2.45 mtr
Elbow 90 deg : 1
Flange- JIS 40A 10K-3

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-14	Shipyard Supply Costs		Lumpsum	No

Short Description :

SW service line to MGPS

Long Description :

Specs:

Carbon Steel 40A Sch 80
Length: 2.9 mtr
Elbow 90 deg : 2
Flange- JIS 40A 10K-4

Exiting pipe to remove, flanges surfaces to be cleaned. New pipe as per above specs to be fabricated and transported back to vessel and fitted in place with new gaskets suitable for sea water. New bolts and nuts to be used.
Leak tested once the vessel is afloat.
Allow for access, lightening,ventilation, carnage,transportation,hot work if required.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-15	Shipyard Supply Costs			No

Short Description :

No.1 Central cooler Sea water outlet pipe renewal.

Long Description :

Pipe size:
Material: - MS, Schedule 80
Flange:
Elbows:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-16	Shipyard Supply Costs			No

Short Description :

No.2 Central cooler Sea water outlet pipe renewal

Long Description :

Pipe size:
Material: - MS, Schedule 80
Flange:
Elbows:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-17	Shipyard Supply Costs			No

Short Description :

No.1 & No.2 central cooler Drip trays to be fabricated

Long Description :

Job scope:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-001-18	Shipyard Supply Costs		ls	No

Short Description :

Boiler water discharge overboard line

Long Description :

Renewal of boiler water discharge line to be renewed.

YY-002 Additional SOR's

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-002-01	Shipyard Supply Costs		Lumpsome	No

Short Description :

Additional SOR's

Long Description :

Quote for additional SOR's as sent by the vessel for that yard

YY-003 Central cooler No.1 Sea water outlet pipie

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-003-01	Shipyard Supply Costs			No

Short Description :

Central cooler No.1 Sea water outlet pipe renewal.

Long Description :

Pipe size:
Material: - MS, Schedule 80
Flange:
Elbows

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-003-02	Shipyard Supply Costs			No

Short Description :

Central cooler No.2 Sea water outlet pipe renewal

Long Description :

Pipe size:
Material: - MS, Schedule 80
Flange:
Elbows:

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-003-03	Shipyard Supply Costs			No

Short Description :

No.1 & No.2 Central cooler Drip tray fabrication

	Long Description : *To fabricate Drip trays*

YY-004	**ER pipe line sacrifical flange renewal**

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
YY-004-01	Shipyard Supply Costs		PC	No

Short Description :

ER Pipe line sacrificial flange renewal

Long Description :

To renew the sacrificial flange in sea water line.

ZA : OWNER SUPPLY SHIPYARD COSTS

ZA-018 Installation of Mussassino Cargo tank Pressure alarm Upgrade

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-018-01	Shipyard Supply Costs		Lumpsome	No

Short Description :

Up-grade of present Mussassino System Alarm System for Pressure Monitoring

Long Description :

To up-grader present Mussasino Cargo tank pressure monitoring system as per MESQAC requirements

ZA-109 Cargo Line Safety Valves (Gas Carrier)

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-109-02	Shipyard Supply Costs		set	Yes

Short Description :

Service Attendance

ZA-141 Dry Dock Spares

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-141-01	Shipyard Supply Costs			No

Short Description :

MGPS Anodes

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-141-02	Shipyard Supply Costs			No

Short Description :

M .E spares

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-141-03	Shipyard Supply Costs			No

Short Description :

Aux engine spares

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-141-04	Shipyard Supply Costs			No

Short Description :

M.E T/C Spares

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZA-141-05	Shipyard Supply Costs			No

Short Description :

Cargo crane spares

ZB : MODIFICATION JOBS

ZB-001 Bunker Line modification

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-001-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Bunker Line Modification as per ECA 2015 regulation.

Long Description :

Bunker line modification to be carry out as per ECA 2015 regulation.
Additional bunker manifold to be fabricated and fitted as ULSMGO filling line.
ER internal modification to be carry out, new suction line to be fabricated and fitted from ULSMGO (ex-FOT S) to MGO transfer pump.

To be follow as per Class NK approval drawing.

ZB-002 Additional Job

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-002-01	Shipyard Supply Costs			No

Short Description :

Additions Jobs

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-002-02	Shipyard Supply Costs		job	No

Short Description :

Gas detection system installation

Long Description :

Gas detection system installation.
Remove/refit wall panel/insulation
Fabricate/install mounting brackets for system cabinet
Install SW2020 system cabinet inside CCR and repeater.
Run cable from ship's emergency power to the SW2020 system cabinet
Run power and data cable from repeater panel to system cabinet
Lay/install owner's supplied stainless tubes from existing 11 x deck penetration sampling points to the system cabinet.
Yard to supply:
4 x 1.00mm cable - 10 mtrs
3 x 1.3mm cable - 25 mtrs
Adaptor plates with 4 x bolts
Stauff couplings
Securing brackets
Assist CONSILIUM specialist in testing

ZB-004 Sewage Line Modification

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-004-01	Shipyard Supply Costs		Lumpsome	No

Short Description :

Sewage modification

Long Description :

To modify sewage line to meet Black Sea regulations in the DD as per the attached SOR

ZB-005 Bunker tank Overflow arrangement modification

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-005-01	Shipyard Supply Costs		Lumpsome	No

Short Description :

Bunker tank overflow line modification

Long Description :

Overflow line for #1 (P &S) is at 80 % and same to be modified to meet 90 % capacity of the tanks. Shipyard to provide Cost, labor, staging, ventilation and lighting for the job.

Class will verify the work after completion

ZB-008 Ballast water treBallast water treatment plant modification job for fresh water operationatement plant

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-008-01	Shipyard Supply Costs		lump sum	No

Short Description :

Ballast water treatment system modification for fresh water operation.

Long Description :

Ballast water treatment system modification for fresh water operation- To install mixing pump , flow control valve, motor installation, pump control unit, mixing nozzle, pipe line and cable connection

ZB-010 Retrofit HMI section of Cargo hold and Ballast control valve system

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-010-01	Shipyard Supply Costs		2	No

Short Description :

Retrofit HMI section of Cargo hold Bilge and Ballast valve control system.

Long Description :

Job scope;

-To remove the presently installed "Mariner System" from ECR and Ship office.
-Retrofit with a new system with complete HMI system in ECR and Ship office.
-All Cargo hold bilge and Ballast tank valves remote opening and closing to be tested from ECR and Ship office, verify and proof working.

ZB-011 MGO Cooler Installation and piping Fabrication.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-011-01	Shipyard Supply Costs			No

Short Description :

MGO Cooler to Installation in Purifier room.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-011-02	Shipyard Supply Costs			No

Short Description :

MGO Cooler Pipeline Fabrication

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-011-03	Shipyard Supply Costs			No

Short Description :

MGO Cooler L.T Water Pipeline Fabrication.

ZB-012 No.4 (P & S) WBT vent head pipe modification

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZB-012-01	Shipyard Supply Costs		Set	No

Short Description :

Modify the existing WBT Vent head pipe with a combination of angle pipes to relocate the position of the vent head.

Long Description :

Modify the existing WBT Vent head pipe with a combination of angle pipes to relocate the position of the vent head. Same vent head to be re-used.
Photo attached for modification plan.

ZZ : ENGINE ROOM TANKS

ZZ-001 Engine Room fuel /Diesel oil Tanks

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-01	Shipyard Supply Costs		Per tank	No

Short Description :

Engine Room Fuel Oil Tanks cleaning & survey

Long Description :

The vessel is equipped with the following fuel oil tanks which are to be opened and pumped dry by the yard. The tanks are then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

HFO Settling Tank -
HFO Service Tank -
MDO Settling Tank -
MDO Service Tank -

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, carnage if reqd to transfer the sludge /oily rags ashore.

Quote price .....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-02	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of sludge

Long Description :

Quote for disposal of sludge/ton.
Allow for container, transportation, cranage, labour.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-03	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of oily water

Long Description :

Quote for disposal of oily water/ton.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-04	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Service tank

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 1-2 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-05	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Settling tank

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-06	Shipyard Supply Costs		Lumpsum	No

Short Description :

Diesel Oil service tank #1

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-07	Shipyard Supply Costs		Lumpsum	No

Short Description :

Diesel oil service tank #2

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).
Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-08	Shipyard Supply Costs		lumpsum	No

Short Description :

FO Bunker tank #1(P)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-09	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Bunker tank #2(P)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-10	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Bunker tank # 3(P)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-11	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Bunker tank #1(S)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-12	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Bunker tank #2(S)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-13	Shipyard Supply Costs		Lumpsum	No

Short Description :

FO Bunker tank #3(S)

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which are to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-14	Shipyard Supply Costs		lumpsum	No

Short Description :

Diesel Oil tank (P)

Long Description :

Capacity: m3
The vessel is equipped with the following DO tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).
Advise the cost per tank and allow 1.0 tonnes' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-001-15	Shipyard Supply Costs		Lumpsum	No

Short Description :

Diesel oil tank (S)

Long Description :

Capacity: m3
The vessel is equipped with the following DOI tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).
Advise the cost per tank and allow 1.0 tonnes' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

ZZ-002 Engine Room Lub oil tanks cleaning

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-002-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Engine Room lubricating oil tanks

Long Description :

Capacity: m3
The vessel is equipped with the following Lub oil tank which is to be opened and pumped dry by the yard. The tanks are then to be made gas free and clean ready for inspection (CMS),
Advise the cost and allow 1-2 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-002-02	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of sludge

Long Description :

Quote for disposal of sludge/ton.
Allow for container, transfer of the sludge ashore and carnage.

Quote Price.....

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-002-03	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of oily water

Long Description :

Quote/ton disposal of oily water

ZZ-003 Engine Room Fresh water tanks cleaning

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-003-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

General Fresh water tank

Long Description :

Capacity.....m3

The vessel is equipped with the general fresh water tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).

Allow for opening/closing of manhole doors, staging access lighting, carnage,ventilation, equipment for accessory work.

Advise the cost per tank and allow 0.2 tonnes' of residue in total to be pumped out and disposed off ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-003-02	Shipyard Supply Costs		Per ton	No

Short Description :

Mud removal & disposal

Long Description :

Quote/ton cost of removal and disposal of mud to ashore.
Allow for container, cranage ,transportation ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-003-03	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of fresh water

Long Description :

Quote for the disposal of fresh water / ton.
Allow for portable pump & flexible piping of sufficient length, access lighting.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-003-04	Shipyard Supply Costs		lumpsum	No

Short Description :

Drinking water tank

Long Description :

Capacity.....m3

The vessel is equipped with the drinking water tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).

Allow for opening/closing of manhole doors, staging access lighting, carnage,ventilation, equipment for accessory work.

Advise the cost per tank and allow 0.2 tonnes' of residue in total to be pumped out and disposed off ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-003-05	Shipyard Supply Costs		Lumpsum	No

Short Description :

Distillate Water tank

Long Description :

Capacity.....m3

The vessel is equipped with the Distilled water tank which is to be opened and pumped dry by the yard. The tank is then to be made gas free and clean ready for inspection (CMS).

Allow for opening/closing of manhole doors, staging access lighting, carnage,ventilation, equipment for accessory work.

Advise the cost per tank and allow 0.2 tonnes' of residue in total to be pumped out and disposed off ashore.

ZZ-004 Engine Room Bilge & sludge tank

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-004-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Bilge water tanks

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which are to be opened and pumped dry by the yard. The tanks are then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore.
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.
Quote price

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-004-02	Shipyard Supply Costs		Per ton	No

Short Description :

Disposal of sludge

Long Description :

Quote/ton for the disposal of the sludge
Allow for the transfer from E/R to deck and ashore, staging, cranage, ventilation,transportation.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-004-03	Shipyard Supply Costs			No

Short Description :

Disposal of Oily water

Long Description :

Quote/ton for the disposal of the Oily water .
Allow for the transfer from E/R to deck and ashore, staging, cranage, ventilation,transportat

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-004-04	Shipyard Supply Costs		Lumpsum	No

Short Description :

Sludge tank

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which are to be opened and pumped dry by the yard. The tanks are then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore .
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-004-05	Shipyard Supply Costs		Lumpsum	No

Short Description :

Stuffing Box Oil settling tank

Long Description :

Capacity: m3
The vessel is equipped with the following fuel oil tank which are to be opened and pumped dry by the yard. The tanks are then to be made gas free and clean ready for inspection (CMS), during this inspection the fuel tank heating coils are to be pressure tested to 6 bar and a certificate issued.

Advise the cost per tank and allow 2-3 tones' of residue in total to be pumped out and disposed off ashore .
Allow for gas free certificate, open/close the manhole cover, ventilation, staging, access lighting, cranage if reqd to transfer the sludge /oily rags ashore.

ZZ-005 Bifurcation of the Cylinder oil tank

Job Code	Cost Category	Bid Qty	Unit Name	Outside Repair
ZZ-005-01	Shipyard Supply Costs		Lumpsum	No

Short Description :

Bifurcation of the cylinder oil tank

Long Description :

As per the specification provided, the cylinder oil tank to be bifurcated.

Allow for access, lighting, gas freeing, hot work certificate, transportation, equipment and tools, carnage.
Material and labour to include.