

DEENDAYAL PORT AUTHORITY

Certified under ISO 9001:2008:14001:2004

Office of the Marine Engineer Gr-I
Marine Bhawan, G # 2.
New Kandla, Kutch,
Gujarat PIN-370 210



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No. CME/MECH/

Date: 11/12/2023

To,

M/s.

Expression of Interest

Sub: Left out work of Major Repair of Heave Up Barge Bhimsen.

Sir,

Deendayal Port Authority intends to award the work of " **Left out work of Major Repair of Heave Up Barge Bhimsen** ".

Kindly submit your Expression of interest along with budgetary-offer for the subject work in the prescribed format at **Schedule-B** on the basis of Scope of work at **Annexure-I** & Terms & Conditions at **Annexure-II** enclosed herewith.

The rates quoted must be inclusive of all costs such as taxes, material, labour, transportation etc. and any other charges for successful completion of the work excluding GST. The GST applicable shall be shown separately, which shall not be considered for evaluation purposes.

Your Expression of interest duly signed and stamped along with budgetary offer for the above work should reach the office of Marine Engineer Gr-I **on or before – 18/12/2023**.

Thanking you,

Yours faithfully,

Sd/-

**Marine Engineer Gr-I
Deendayal Port Authority**

Schedule-B

Sub:- Left out work of Major Repair of Heave Up Barge Bhimsen.

Sr. No.	Item Description	Unit	Qty.	Unit Rate (Rs.)	Amount (Rs.)
PART A: Repair Items					
1	2	3	4	5	6
1	Renewal of steel plates/angles/frames /brackets/stiffeners/Manhole door sets /round bars, etc. major plates of 6/8/10/12/20 mm thickness and bars of 32/60/100 mm dia. as per requirement in place on Barge Bhimsen including the cost of material. (Note: All Steel must be sandblasted and painted with single coat of primer on both side before fitting).	Tons	15		
2	Renewal of Galvanized Roller Shutters of approx. width 2 Mtrs and Height 2.8 Mtrs with all fittings and paintings (1primer+2final) including the cost of material.	Nos.	03		
3	Sandblasting & Painting of above water areas e.g. deck, Machinery space, inside tanks, bulkheads, frames etc. with 3/4 coats of paints as per painting scheme approved by paint manufacturer (Jotun/international/Sigma) under guarantee period of Min. 1 year including cost of material.	Sq.M	2800		
4	Supply, Installation, Testing & Commissioning of 3-Phase,415 Volt, 25 Kw new Generator Set (Diesel Engine with battery start) suitable for marine application at suitable location on board Barge Bhimsen. Including switchboards with Shore reception facility, Caballing's, sockets, Lightings with fittings, etc. (DG Make- Kirloskar/Ashok Leyland/Simpson/ Cummins / Greaves)	No.	01		

5	Supply of portable single phase, 3 HP submersible pump having stainless steel body and suitable for sea water/slurry application for Marine Tank dewatering purpose. Each pump shall be supplied with min. 40m mtrs of electric cable (3-core) and 20 mtrs hard PVC water hose (green) compatible with outlet connection of pumps. (Pump make: KSB, Crompton, Lubi)	Nos.	03		
Total Amount of "Part A" In Figure (Rs.)					

Note: Above rates are Exclusive of GST.

Total Amount in Words- Rs.

(_____)
 _____)

Seal & Signature of Contractor

**Sd/-
 Marine Engineer Gr.-I
 Deendayal Port Authority**

Scope of Work & Technical Specifications

1. General:

- 1.01 Deendayal Port Authority (DPA) is in possession of Heave up barge Bhimsen at New Kandla. The detailed technical specification of the said barge is mentioned at **Clause 07**.
- 1.02 The job specifications given for the "**Left out work of Major Repair Work of Heave Up Barge Bhimsen**" in the **Schedule-'B'** describe broad requirements to which the contractor shall work. However, the fact that everything is not fully specified and there may be omission in the job specifications, shall not absolve the contractor from his responsibility to carry out the work in safe, apt and proper manner and acceptable in all respects as per shipbuilding and ship repair practices.
- 1.03 The party shall carefully examine and study the site of work, local conditions and exact quantum of work involved against each item detailed in BOQ for "**Left out work of Major Repair Work of Heave Up Barge Bhimsen**" before submitting the offer. If the party has any doubt regarding site/local conditions, the party should get it clarified before submitting the offer. No claim whatsoever will be entertained for any nature of work, arising out of local conditions or subsequent to undertaking each particular job listed in the repair.
- 1.04 The port shall not provide any residential or official accommodation and transport facilities to the contractor or his employees during the execution of the entire work.
- 1.05 The payment to the contractor, for the steel renewal work shall be made on the basis of weight of trimmed edged fitted steel and measured materials, no other claims whatsoever shall be entertained by the port.
- 1.06 The quantity mentioned at the Price Bid i.e. **Schedule -B** is purely tentative and the party shall carry out the work as per the direction of EIC. However, payment will be made as per actual work carried out.
- 1.07 The above scope of work may be increased or decreased as per the requirement during renewal of steel. The additional quantities of work shall be governed under the same rate, terms and conditions etc.
- 1.08 Party shall arrange all tools & tackles, machines, consumables, transportation, materials and manpower including lodging & fooding, personal effects, insurance, PPE etc. for deployed manpower for execution of the work at site at his own cost.
- 1.09 The award of Work shall be considered on Turn-Key basis only. The split of work shall not be accepted.
- 1.10 Old material, scrap etc. generated on account of the renewal of steel shall be property of port and same shall be deposited to DPA at Main store Kandla.

- 1.11 All safety precautions during entire repair work shall be taken by the contractor for their own and DPA. Risk assessment for hazard involved shall be carried out before start of any work and shall be taken care before start of work by the contractor.
- 1.12 It shall be the responsibility of the Contractor to ensure that the persons engaged for the work are clear from Security angle.
- 1.13 To execute the work with due diligence, efficiency and in conformity with sound engineering, administrative and financial practices to protect the interest of the employer.

2. Details of Work:

- 2.01 Broadly the work pertains to renewal of steel, sand/grit blasting and painting of the steel, installation of new Generator Set, supply of portable submersible water pumps as per BOQ etc. Steel included plates, angles, girders, brackets, bars of different sizes as per actual requirements.
- 2.02 The work of steel renewal may require uninstallation and reinstallation of lifting gears/ equipments/ machineries/ lifting rollers with supports etc. of the said barge, the same shall be carried out by the party without any additional cost to DPA.
- 2.03 The work shall be completed within a period of 60 days from the date of commencement of work. The work shall be commenced within ten days from the date of issue of work order.
- 2.04 Work will be carried on SNA Jetty or any other jetty area as available with DPA.
- 2.05 **Renewal of Steel Plate:**
 - i.* The steel used for the subject work shall be confirming to Marine Grade of IS 2062. IS grade shall be certified by Govt. approved Lab/Marine Class societies, test certificate shall be submitted to DPA. IS Grade should also be easily visible on steels supplied to DPA.
 - ii.* All the materials and consumables will be supplied by the contractor required for successful execution of work, this includes but not limited to steel plates, angles, round bars, pipes, Gases with cutting tools, welding electrodes safety devices, PPEs etc.
 - iii.* The welding electrodes to be used shall be of ship building quality like Advani Orelikan, ESAB, L&T or equivalent make, approved by Marine Class Societies. Quality of welding shall fulfill the Marine requirements of water tight integrity and structural integrity.
 - iv.* Old plates to be cropped off & renewed by trimmed edged plates, cleaning the areas, removal and refitting of all associated fittings, e.g. insulating materials,

supports, manhole doors, port holes, electrical wiring & fittings, etc. required for renewal of steel plates shall be done by the contractor.

- v.* While execution of work, if it is required for safety to support the Sections or part of hull/Machinery/equipments/any structure of Barge Bhimsen, same shall be done by the contractor at their cost. No additional charge shall be paid by DPA for this type of works as preventive measures during repair work of barge Bhimsen.
- vi.* For welding work, the contractor shall employ only qualified and experienced welders approved by the Marine Classification society.
- vii.* The work of renewal of steel shall be carried out with the best workman ship and quality with a guarantee period of six months. The contractor will be responsible to rectify the defects without any extra cost during the guarantee period.
- viii.* During execution of work if any stiffener members or part thereof are found in re-usable condition the same shall be utilized without any additional cost to DPA.

2.06 Installation of Generator Set & Supply of Submersible Pumps:

- i.* Supply, Installation, Testing & Commissioning of 3-Phase, 415 Volt, 25 KW Generator Set (Diesel engine with Battery start and air cooled) of Make-Kirloskar/Ashok Leyland/Simpson/ Cummins/ Greaves on Barge Bhimsen. Foundation, vibration dampers, alignments, attachments and other fittings e.g. exhaust trucking with one expansion bellow from Engine to out of the compartment into air with proper insulation and protection arrangement shall be made by the contractor. Feasible location for installations of DG set along with other attachments shall be indicated by EIC. Diesel tank capacity of DG set shall be minimum for 12 hrs at full load. DG set supplied shall be complete in all respect to start at site i.e. required materials e.g. coolant, Lube oil, water, batteries etc. shall be supplied along with new DG set.
- ii.* Supply of 3 nos. portable single phase, 3 HP submersible pump having stainless steel body and suitable for sea water/slurry application for Marine Tank dewatering purpose. Each pump shall be connected with minimum 40 mtrs of electric cable (3-core) and clamped (SS Clamp) with 20 mtrs hard PVC water hose (green) with the outlet of pump.
- iii.* Cable used for supply of power on Bhimsen shall be of marine grade 3-core with fire protective & retarding sheathing. 30 Marine waterproof lights (bulb-60W) with fittings & cables including one flood light of min. 100W (LED). Light shall be properly secured on the barge Bhimsen at appropriate locations with safe working practices. All cables shall be secured on the barge Bhimsen as per Marine rules following all safety and easy maintenance.

- iv.* The contractor has to fabricate/supply new switch board suitable for 25 KW load (3-phase) with sufficient safety margin. Switch board should have provision for 230V and 415 V supply arrangements with minimum one Bus-bar (3-phase) and earth fault detector. Switch board shall minimum following switch gears:
- a)* one DG intake MCCB breaker with protection devices,
 - b)* one shore power reception MCCB breaker with phase sequence monitor and protection devices.
 - c)* Two connecting power sockets with male & female coupling for welding machine with 3-phase breakers (150Amp).
 - d)* 15 nos. of 2-pole MCB (04 nos. suitable for 3HP single phase submersible pump, 06 nos. suitable for lightings, 05 nos. 16 Amp),
 - e)* 05 nos. 3-pole MCB (03 nos.-16 Amp and 02 nos.-32 Amp.).
 - f)* Combined single phase switches-socket 04 nos. of 05 Amp. & 02 nos. of 16 Amp.

2.07 Contractor has to follow all the safety precaution and safe marine working practices while carrying out the repair work in DPA. Hot works, tanks cleaning, gas freeing, Fire hazard, ventilations, etc. shall be observed with safe practices by contractor at his risk and cost. Preventive measures shall be taken as per Marine safe working practices.

3. Material:

All consumable items required for repair of Barge Bhimsen i.e. the items including but not limited to cleaning material, jute, rags, nut & bolts, packing's & O-rings, washers, welding rods, gases, cutting torch, safety equipments, PPEs, other day-to-day requirements etc. shall be supplied by the party at his own cost no any other claims shall be entrained by DPA.

4. Owner's Liability:

Following shall be provided by DPA **free of cost:**

- 4.01 Provide safe jetty space for the Barge Bhimsen during repairing work.
- 4.02 Shore power supply at jetty for repair and maintenance work of Barge Bhimsen, however written permission for the same shall be obtained from Electrical department of DPA in advance. Necessary switch board, cables, other requirements, etc. shall be arranged by the contractor at his own cost.
- 4.03 Fire watch for hot work during repair and maintenance shall be provided by DPA free of cost as and when required, however, prior written permission has to be taken well in advance from Fire section of DPA.
- 4.04 Available drawings & manuals of barge Bhimsen to the Contractor, as per availability.
- 4.05 Fuel, lube oil and water for Barge Bhimsen only for operational and maintenance purposes.

5. Surface Preparation and Painting:

- 5.01 Work of painting should be carried out with the best workmanship and quality as per paint manufacturer, with a guarantee as specified in schedule B. The contractor will be responsible to rectify the defect without any extra cost during the guarantee period. If any portion of area of barge found rusted or paint peeled off during the guarantee period, contractor has to again re-paint the same with surface preparation as per paint manufacturer.
- 5.02 Party is required to remove all the marine growth by manual scrapping / high pressure water washing for cleaning. The surface after sand/grit blasting, shall be cleaned with wire brush or blown off by compressed air. The compressed air used for nozzle blasting shall be free from water and oil. Blast cleaning operation shall be done in such a manner that no damages is done to partially or entirely completed portion of the completed work.
- 5.03 Dry sand blasting operation shall be carried out with Godhara sand/grit and shall be conducted on dry surface only. Painting shall not be carried out on the wet surfaces or surfaces not properly prepared as per guidelines of paint manufacturer. The Godhara sand/grit used for ballasting shall be backed by royalty challan/invoice. A copy of royalty challan and un-priced invoice should be submitted to the Engineer-in-charge for necessary verification and records.
- 5.04 No sharps scratches or cuts shall be made on the steel surfaces during blasting/chipping/cleaning etc. operations.
- 5.05 Sand blasting shall be carried out as described in Swedish Standard SIS-05-5900-1967, dry sand blasting to SA1/SA2. The prepared surface shall then correspond in appearance to the prints designated as SA1/SA2. In case of any discrepancy raised during execution on the issue of surface preparation to the required standard (i.e. base metal surface grey), the contractor has to furnish the authentic prints designated as SA1/SA2 for comparison/checking.
- 5.06 Application of primer and paint shall be done by airless spray after prescribed surface preparation only.
- 5.07 Intervals between surface preparation and application of first coat of primer shall be as short as possible and in no case more than four (04) hours. In case of delay, re-blasting may be required for surface preparation.
- 5.08 Preparation of paint mixture, time gap between successive coatings, period between paint mixing and application of paint should be strictly as per recommendation of paint manufacturer.
- 5.09 Painting shall be done according to the painting scheme prescribed by the Manufacturer. The primers, M.I.O., finish paints and thinner used for painting work shall be of same brand only.
- 5.10 The contractor is required to engage the paint manufacturer's representative during the period of painting with surface preparation e.g. sand/grit blasting, water

- washing, cleaning and during application of paint etc. to the barge Bhimsen at its own cost
- 5.11 If the required microns thickness of paints specified by manufacturer of paints is not arrived by applying minimum number of coats specified, the same shall have to be arrived by applying more number of coats at no extra costs to the Port. The requirement of both minimum number of coats and microns thickness specified in any case will have to be satisfied.
- 5.12 Each container of paint, preferably in 20-liter size, should provide the following information.
- Batch Number.
 - Date of manufacture (Shall not be more than six months old at the time of application of paint).
 - Mixing ratio.
- If any one of the above is not to the satisfaction of the Engineer-in-charge, the container shall be rejected for use.
- 5.13 The instruments such as Elcometer etc. will be made available by the contractor, whenever required at the site, at his own cost for verification and satisfaction of DPA.
- 5.14 Any addition of thinner shall be allowed only as per manufacturer's data sheet and it should be done under the supervision of the Engineer-in-charge.
- 5.15 The paint shall not be applied under the conditions, when relative humidity is greater than 90%, rain, fog, mist or weather not advisable by paint manufacturer.
- 5.16 Colour shades in the painting system will be as follows or as per instruction of EIC.
- Top Deck Plates – Green
 - Deck Machinery – Dark Grey
 - Above Water Hull - Blue
 - Super Structure – White
 - Rolling Shutter – Yellow
 - Inside of all Tanks & void spaces -Grey
- 5.17 Paint manufacturer's instructions shall be followed at all times and particular attention shall be paid at the following conditions:
- I. Proper storage to avoid exposure to extremes of temperature.
 - II. Mixing and thinning.
 - III. Pot life.
 - IV. Time limit intervals between each coats.
- 5.18 The above water, deck, machinery space, tanks etc. shall be painted with epoxy type paint. The party is required to only use the following Make / Brand of the Paints for painting work.
- 1.Jotun
 - 2. International
 - 3. Sigma

5.19 Party is required to strictly follow the painting scheme of paint manufacturer for respective brand of paint. A Standard Painting Scheme place at **clause-7** for the reference and party is required to maintain the minimum DFT mentioned for respective type of paints. However, before application of the paint the EIC shall approve the painting scheme. The painting work shall be guaranteed for a minimum of one year.

6. Painting Scheme:

S r.	Location / Paint Area	Application (Coat)	Jotun	DFT	Sigma	DFT	International	DFT
1.	Above Water (Deck, side hull, tanks, machinery spaces, superstructure, etc.)	1st	Penguard Primer	50	Sigma Cover 280	50	Intertuf262	175
		2nd	Jotamastic 80, Aluminum	150	Sigma Cover 620	150	Interguard 740	75
		3rd	Penguard TC	50	Sigma Cover 456	50	---	---

7. Technical Details of Barge Bhimsen:

a	Length	30.0 M
b	Depth	2.0 M
c	Breadth	10.0 M
d	Draft	1.50 M
e	Hull & Superstructure	Steel
f	Year of Built	1984

Note: The details given here are not exhaustive. The bidders are advised to inspect the barge prior to submitting the offer. They can also verify the drawings, manuals, etc. pertaining to the barge before submission of bid.

**Signature & Seal
of Contractor**

**Marine Engineer Gr.-I
Deendayal Port Authority**

Terms & Conditions

1. General:

- 1.01 Party shall arrange all consumables, tools and tackles, equipments & machines, transportation, materials and manpowers required for successful execution of the work at his own cost.
- 1.02 Port Entry permit for the manpowers, vehicles and materials shall be arranged by the contractor.
- 1.03 The Contractor will follow all labour laws, Marine safe working practice as per Govt. rules and guidelines.
- 1.04 The contractor shall not deposit any material at such a place that may cause inconvenience to the public or staff or nearby offices for proper functioning of DPA work/operation.
- 1.05 All the rules and regulation governing by DPA will be applicable.
- 1.06 FORCE MAJERE: This shall be restricted to acts of GOD only.
- 1.07 After completion of the work the contractor is required to clear the work sites on SNA jetty and other working areas. Old steel scraps generated on account of the execution of all the work shall be the property of the DPA and same shall be deposited to DPA at Main store Kandla.
- 1.08 For bid evaluation purpose approx. 45 Tons (i.e. 50% of the steel renewal) is taken for consideration, however actual weight of steel scrap shall be measured on the weighing bridge at DPA in presence of DPA official for which all arrangements e.g. lifting, loading/unloading, transportation will be made by contractor at his own cost. Receipt of weighment shall be submitted to DPA for calculation purpose. It is to be noted by the contractor that quantity of steel taken away by the contractor after weighment at a time shall not be more than the quantity of renewed steel and DPA will not provide any space for storage of scrap steel. The contractor shall remove it from site as it shall not cause any hindrance to site work as well others in the port to carry out day to day work.
- 1.09 During execution of work, a qualified Engineer/Supervisor shall remain present for proper supervision/execution of work and for giving guidance to the workers and also for taking corrective measures to improve the quality of work to complete the work as directed by the Engineer-in-Charge at site.
- 1.10 The contractor shall ensure not to cause any damage to the port properties during execution of work. If any damage occurs due to poor workmanship or handling of the contractor or their manpower, the contractor has to make good the loss/damage at his own cost.

- 1.11 The work shall be carried out in accordance with the best standard of workmanship and to the entire satisfaction of DPA.
- 1.12 No advance will be given for the repair work; the contractor has to plan his schedule of work in such a manner that no work should be held up on account of procurement of materials, labours etc. required for successful execution of work.
- 1.13 No materials/spares unless otherwise specified in the **schedule 'B'** and in Technical Conditions/specifications required for the work shall be supplied by the Port and the contractor has to make his own arrangements to procure all the materials unless otherwise specified.
- 1.14 The Port will not provide any workshop facilities, tools & tackles labours, supervisory staff, etc. to the contractor by way of any assistance.
- 1.15 Extension of completion period shall be granted without levy of L.D. on merit basis of the following reasons not attributable to the contractor:
 - (a) Bad weather, natural calamity & Act of GOD.
 - (b) The work of welding, sandblasting and painting etc. cannot be carried out in humid atmosphere or drizzling atmosphere, the orders recorded by Engineer-in-Charge or his representative shall be considered for granting extension.

2. Time Schedule:

The Contract shall be effective from the date of commencement of the work and shall be completed within 60 days from the date of commencement of the work. **The work shall commence within 10 days from the date of issue of work order.**

3. Insurance:

The contract shall provide in the joint names of the employer and the contractor, insurance cover from the start date to the end of guarantee period for the following events which are due to the contractor risk:

- a) Personal injury or death.

4. Guarantee:

All repair works except painting work under schedule B shall have the guarantee period of six months. The painting work shall be guaranteed for a minimum of one year.

5. Employer's Obligation:

Electricity, water and land for execution of the work at site shall be provided free of cost by DPA.

6. Third Party Inspection:

DPA shall arrange the visits of IRS as TPI for Marine Craft as and when required during the execution of work. If any observations/queries are made by IRS, same shall be complied by Contractor before the next schedule visit. Charges of the visit of IRS shall be paid by DPA, however, any increase in visits on account of contractor's deficiency shall be borne by contractor.

- 7.** In case any of the works under this contract are not performed by the Contractor, like steel renewal, painting, etc. then DPA shall carry out the same at the risk and cost of the Contractor as applicable with 20% overheads.

**Signature & Seal
of Contractor**

**Marine Engineer Gr.-I
Deendayal Port Authority**