

Technical Specification of Machineries/ Equipment for 85m Self-Sustained Pontoon for DIGRAJ Naval Berth, BNS MONGLA

1. Fire Fighting Pump.

a. **Diesel driven fire fighting pump.** A diesel driven fire fighting pump of following specification:

- | | | | |
|-----|-------------------|---|---|
| (1) | Number | : | One (1) set |
| (2) | Type | : | Centrifugal |
| (3) | Capacity | : | 20 m ³ / hr at 20m water column (approx.) |
| (4) | Drive | : | Four stroke diesel engine of adequate power to run the pump satisfactorily. |
| (5) | Country of Origin | : | EU/ UK. |

b. **Electric driven fire fighting pump.** An electric driven fire fighting pump of following specification will be installed parallel to the diesel driven firefighting pump:

- | | | | |
|-----|-------------------|---|--|
| (1) | Number | : | One (1) set |
| (2) | Type | : | Centrifugal |
| (3) | Capacity | : | 20 m ³ / hr at 20m water column (approx.) |
| (4) | Drive | : | Electric driven |
| (5) | Country of Origin | : | EU/ UK. |

2. Electric Vertical Mooring Capstan. 02 x Electric vertical mooring capstan will be used to pull or adjust the tension of the ropes or wire ropes during submarine coming along side pontoon and should have 01x capstan control shed. The Electric vertical mooring capstan should have following basic specifications:

- Planetary gear system for fast line speed.
- Electromagnetic/ Disk Brake
- Free spooling.
- Power in and Power out.
- Moderate electricity running current.
- Technical Specifications. Following technical specifications are to ensure for Electric vertical mooring capstan.

(1)	Quantity	02 complete set	
(2)	Type	Electrical	
(3)	Model	To be mentioned	
(4)	Pull Capacity (Minimum)	100 KN	For each Capstan
(5)	Warping Speed (Minimum)	9m/min	A variable warping speed from 6 to 15 m/min is desirable.
(6)	Gearbox	Details to be mentioned	
(7)	Motor	18.5 kW	



(8)	Power supply	380 – 440V, 3 phase, 50Hz	
(9)	Brake	Electromagnetic/ Disk type	
(10)	Safety features/mechanism	Details to be mentioned	
(11)	Overall dimension	Dia: 1050mm Height: 2600mm	
(12)	Overall weight	2400 kg	
(13)	Ingress protection	IP 56 or better	

3. **Hydraulic Telescopic Folding Arm Crane.** Hydraulic Telescopic Folding Arm Crane of minimum 2.5 ton capacity to lift load at a distance of 24 m is to be supplied and installed in the suitable location of the pontoon. The crane will be used to lift and shift load in and around of the pontoon to berthing ships and crafts. Considerations should be taken while operating the crane, the pontoon should not be tilted or listed to one side. Fast moving spares for Hydraulic crane need to be supplied.

a. **Technical Data of the Crane**

(1)	Type	Electro Hydraulic Telescopic Knuckle Boom Crane
(2)	Model	2.5T24M Telescopic Knuckle Boom
(3)	Lifting Capacity	Minimum 2.5 ton
(4)	Max-working radius	Minimum 24m
5.	Min-working radius	Minimum 4.5m
6.	Rated lifting speed (at SWL)	20m/min (approx.)
7.	Slewing Speed (full load)	0.5 r/ min (approx.)
8.	Luffing time (no load)	80s (approx.)
9.	Jib-knuckling time (no load)	70s (approx.)
10.	Slewing scope	360° (approx.)
11.	Hoisting height	35m (approx.)
12.	Max-heel/trim	5°/ 2° (approx.)
13.	Weight of crane (excluding hydraulic)	To be mentioned (lower weight will be preferable)

b. **Electrical Motor Data**

1.	Model	To be mentioned
2.	Power rating	To be mentioned
3.	Power supply	To be mentioned
4.	Electric current	To be mentioned
5.	Starting method	Y-Δ
6.	Duty	SI
7.	Turn around	To be mentioned
8.	Protection class	To be mentioned
9.	Insulation class	To be mentioned

c. **Pre-Shipment Inspection (PSI).** 02 of the DEW's representatives shall conduct the Pre-Shipment Inspection (PSI) for 05 working days. DEW shall issue a Pre-Shipment Inspection Certificate (for the corresponding Goods only) after satisfactory completion of the inspection. All cost related to PSI will be borne by supplier.



4. **Generator.** 01 x Generator of capacity 120 ~125 kW will be supplied and will be fitted on main deck as shown in the GA drawing to operate fresh water, sea water and lub oil pump, general light and fan. The general specification of the generator will as following:

- | | | | |
|------|------------------------|---|----------------------------|
| (1) | Maker | : | Perkins or equivalent |
| (2) | Model/Type | : | Industrial type |
| (3) | Power | : | 120-125kW |
| (4) | Output | : | 400 V, 50 Hz (three phase) |
| (5) | RPM | : | 1500 |
| (6) | Fuel | : | Diesel Oil |
| (7) | Cooling | : | Air cooled |
| (8) | Power factor | : | 0.80 |
| (9) | Start | : | Battery 12 Volt |
| (10) | Country of origin | : | EU/ UK |
| (11) | Country of Manufacture | : | EU/ UK |



**Technical Specification of Machineries/ Equipment for 36m Self-Sustained Pontoon
for DIGRAJ Naval Berth, BNS MONGLA**

1. Fire Fighting Pump.

a. **Diesel driven fire fighting pump.** A diesel driven fire fighting pump of following specification:

- | | | | |
|-----|-------------------|---|---|
| (1) | Number | : | One (1) set |
| (2) | Type | : | Centrifugal |
| (3) | Capacity | : | 20 m ³ / hr at 20m water column (approx.) |
| (4) | Drive | : | Four stroke diesel engine of adequate power to run the pump satisfactorily. |
| (5) | Country of Origin | : | EU/ UK. |

b. **Electric driven fire fighting pump.** An electric driven fire fighting pump of following specification will be installed parallel to the diesel driven fire fighting pump:

- | | | | |
|-----|-------------------|---|--|
| (1) | Number | : | One (1) set |
| (2) | Type | : | Centrifugal |
| (3) | Capacity | : | 20 m ³ / hr at 20m water column (approx.) |
| (4) | Drive | : | Electric driven |
| (5) | Country of Origin | : | EU/ UK. |

2. Generator. 01x Generator of capacity 50 kW will be supplied and will be fitted on main deck as shown in the GA drawing to operate fresh water, sea water and lub oil pump, general light and fan. The general specification of the generator will as following:

- | | | | |
|------|-------------------|---|---------------------------|
| (1) | Maker | : | Perkins or equivalent |
| (2) | Model/ Type | : | Industrial type |
| (3) | Power | : | 50 kW |
| (4) | Output | : | 400 V, 50Hz (Three phase) |
| (5) | RPM | : | 1500 |
| (6) | Fuel | : | Diesel Oil |
| (7) | Cooling | : | Air cooled |
| (8) | Power factor | : | 0.80 |
| (9) | Start | : | Battery 12 volt |
| (10) | Country of origin | : | EU/ UK |

