



**MAZAGON DOCK SHIPBUILDERS LIMITED**

(Formerly known as Mazagon Dock Ltd.)

CIN : U35100MH1934GOI002079

(A Government of India Undertaking)

Shipbuilders to the Nation

Dockyard Road, Mazagon,

Mumbai 400 010.

INDIA

**Erection of Crane Beam including allied Civil  
and Electrical work at Steel Store, South Yard,  
MDL, Mumbai**

**VOLUME-III**

**Scope of Work, Tender Drawings  
& Price Bid (Part-II)**

Table of Contents		
Clause No.	PERTICULARS	PAGE No.
1.	SCOPE OF WORK	02
2	TENDER DRAWINGS	02
3	BILL OF QUANTITIES PRICE BID (PART II) <b>(Enclosure-1)</b>	03

**1 BRIEF SCOPE OF WORK:****Civil and Structural works:-**

The work consists of working at height approximately 10 metre in a confined area with necessary precautions and precision. The brief Scope of work is as under:

- 1.1 Dismantling existing Crane Beam/Girder of weight approx. 8 T.
- 1.2 Erection of Already fabricated crane Beam/Girder of weight approx. 8 T. with the use of crane.
- 1.3 Removing and re-fixing of rail track.
- 1.4 Construction of foundation for new structural column.
- 1.5 Fabricating and fixing the new structural column.
- 1.6 Providing and laying Grade slab with M40 concrete.
- 1.7 Providing and applying Aluminium & acrylic Painting.

**Electrical works:-**

- 1.8 SITC of 250 Amp, W-250 Type, Copper Shrouded DSL in R/Y/B/G colours complete with all accessories, the new DSL should be able to connect to the existing DSL and current collector perfectly.
- 1.9 Disconnecting worn out section of DSL from existing DSL.
- 1.10 Dismantling of the worn out existing DSL completely.
- 1.11 Installing new DSL on beam with all accessories and necessary fabrication complete.
- 1.12 Connecting the newly installed DSL with the existing DSL.
- 1.13 Testing of the crane over the entire length including newly installed beam.

**The detailed scope of work has been indicated in the Bill of Quantities (BOQ) Price Bid Part-II at Enclosure-1.**

**2 TENDER DRAWINGS:**

Sr. NO	TITLE	TENDER DRAWING NO
1	LAYOUT OF STEEL STORE	IP/(SY)/ CRANE BEAM/ 01
2	CONCRETING AREA DETAILS	IP/(SY)/ CRANE BEAM/02

The above Tender Drawings in PDF form are attached separately along with Tender Document.

Enclosure-1

**PRICE BID (PART-II)**  
**BILL OF QUANTITIES**  
**(To be submitted online)**

**Sub: Erection of Crane Beam including allied Civil and Electrical work at Steel Store, South Yard, MDL, Mumbai.**

**Ref: MDL Tender No. 180000039**

**INSTRUCTION TO THE BIDDER:**

1. The Work Contract Tax (WCT) under VAT and Service Tax **IS NOT INCLUDED** in the rates indicated below for this section. Bidder is required to quote Work Contract Tax (WCT) under VAT and Service Tax including Swachh Bharat Cess and Kisan Kalyan Cess separately in Percentage which will be added to the rate quoted for this section.
2. Bidder to note Clause No. 2 (Defect Liability Period), Clause No 3 (Security Deposit), Clause No 4 (Performance bank Guarantee), Clause No 6 (Safety & Training), Clause No 9 (Prices and Taxes) & Clause No 16 (Insurance) of Volume II before quoting.
3. MDL reserves the right to increase the quantity of any item in the BOQ to any extent provided the increase in the total Estimated Amount due to this change in the quantity over BOQ quantity multiplied by specified rate for all the items put together do not exceed 25% of the Accepted Contract Value. Bidder to note Clause No 13 of Volume II before quoting.

Sr. No.	Description	Unit	Qty	Rate (₹)	Amount (₹)
<b>A</b>	<b>CIVIL WORKS</b>				
1	<b>Dismantling steel work in built up sections</b> in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets welding etc. including dismembering and stacking within 50 metres lead.(excluding crane charges)	Kg.	8700.00	3.32	28884.00
2	<b>Earth work in excavation by Mechanical means (Hydraulic excavator) / Manual means</b> over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, dewatering whenever required, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil	Cu M	120.00	174.40	20928.00
3	<b>Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.</b> All kinds of soil	Cu M	3.00	71.66	214.98
4	<b>Filling available excavated earth</b> (excluding rock) in trenches. Plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each layer by ramming and watering, lead up to 50m and lift	Cu M	6.00	174.12	1044.72

	up to 1.5m				
5	Providing and laying <b>dry rubble stone soling/ packing</b> handset in regular lines, interstices being filled in with small pieces of stones, thoroughly rammed, consolidated and watered complete as directed.				
	230 mm thickness	Sq M	360.00	314.58	113248.80
6	Providing & laying <b>Plain Cement concrete (PCC) including</b> curing but excluding the cost of centering & shuttering etc; complete as directed..				
	<b>(1:2:4) Concrete</b> (1 Cement: 2 coarse aggregate(zone iii): 4 graded stone aggregate 20mm nominal size)	Cu M	40.00	7590.78	303631.20
7	<b>Providing &amp; fixing in position Centering &amp; shuttering</b> including strutting, propping etc. and removal of form work of approved type as directed by Engineer in charge.				
	Foundations, footings, bases of columns	Sq M	25.00	268.56	6714.00
8	Providing & laying in position machine batched, machine mixed & machine vibrated <b>Design Mix Concrete</b> excluding the cost of centering, shuttering, finishing & reinforcement, including admixtures in recommended proportions (as per IS 9103) to accelerate / retard setting of concrete improve workability without impairing strength and durability as etc; complete as directed for <b>M-25 Grade</b> reinforced cement concrete by using 330 Kg. of cement per cum of concrete				
	All works upto plinth level:	Cu M	65.00	8926.32	580210.80
	<b>Providing M-40 Grade</b> concrete by using 360 kg of cement per cum of concrete instead of M-25 Grade B.M.C./R.M.C.	Cu M	65.00	288.64	18761.60
9	Providing & fixing in position <b>reinforcement bars</b> including straightening, cutting, bending, placing in position & binding with binding wires / welding where ever necessary for slabs / beams / columns; etc. all complete as directed at any location ( Lapping / chairs will be measured & paid) Thermo-Mechanically Treated bars	Kg.	5000.00	78.37	391850.00
10	<b>Providing and fixing Structural steel work riveted, bolted or welded in built up sections,</b> trusses and framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer complete as directed by engineer.	Kg.	6500.00	93.60	608400.00
11	Providing and fixing <b>Foundation bolts &amp; Fisher Plate including for rail, clamp</b> including nuts and washers complete. Structural steel work	kg.	325.00	156.30	50797.50

12	Providing and applying two coats of <b>Aluminium paint</b> of approved brand & manufacture to give an even shade to structural steel including cleaning, wire brushing and surface preparation etc; all complete.	Sq M	475.00	94.64	44954.00
13	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. - <b>Steel supplied by MDL</b>	Kg.	3000.00	41.33	123990.00
14	<b>Supply of Tyre mounted Mobile Crane</b> with operator and all necessary lifting tools and tackles likez slings, D-shakle etc. for lifting of Crane Beam. Capacity Of Crane- 30 Tonne. (1 day is considering the shift of 8 hours) (Crane shall be used for dismantling of existing crane beam, Erection of crane beam ,for alignment, as directed by Engineer in Charge)	Day	7.00	23500.00	164500.00
15	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it thereafter .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin-charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding.	Sq M	465.00	221.76	103118.40
16	<b>Removing &amp; Re-Fixing Existing Rail Track on Crane Beam up</b> 10m height including required Welding & Bolting, Alignment, Testing etc. complete. As directed by engineer In charge. (Excluding crane charges & materials)	RM	22.00	1011.55	22254.10
17	<b>Erection of Structural Crane Beam of approximate weight up</b> to 8 Tone of approximate size-21.0M x 1.2M x 0.6 M up to 10M height etc complete. As per Engineer In charge instruction.(Excluding crane charges)	No	1.00	7739.31	7739.31
18	The brick work with common burnt				

	clay selected F.P.S. (non modular ) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand				
	From ground level up to plinth level	CuM	5.00	6720.86	33604.30
19	20 mm cement plaster of mix 1:4 (1 cement : 4 fine sand)	SqM	100.00	332.53	33253.00
20	Finishing walls with Acrylic smooth exterior paint of required shade: new work (two or more coat applied @ 1.67 lit/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sq M	240.00	133.00	31920.00
21	Disposal of excavated earth, building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved Municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cu M	120.00	516.81	62017.20
	<b>Sub- Total (A)</b>				<b>2752035.91</b>
<b>B</b>	<b>ELECTRICAL WORKS</b>				
22	Conductor Busbar System 250 A Copper 04 Bar System	Mtrs	22.00	6804.51	149699.22
23	Safeline 250 4 (R,Y,B,G) insulated copper conductor system with copper joint cover, Hanger clamps, Anchor Clamps, Center power feed, end covers with all accessories etc	Nos	6.00	6131.25	36787.50
24	Web Bracket 400mm long	Nos	22.00	344.00	7568.00
25	Removal Charges- Dismantling of DSL Systems	Mtrs	22.00	867.00	19074.00
26	Installation charges for safe line insulated conductor bar system	Mtrs	22.00	1162.00	25564.00
27	scaffolding for fixing the bus bar	Nos	1.00	38333.33	38333.33
	<b>Sub- Total (B)</b>				<b>277026.05</b>
	<b>Total ( A+B)</b>				<b>3029061.96</b>
	<b>WCT under VAT (in Percentage)</b>				
	<b>Service Tax including Swachh Bharat Cess and Kisan Kalyan Cess (in Percentage)</b>				
	<b>GRAND TOTAL</b>				