

**:- BILL OF QUANTITY :-**

**Name of Work :- Maintenance Contract of Fenders Inside Cargo Jetty Area for two years**

Sr. No.	Description of Item	Qty.	Rate		Unit		Amount
			In Fig.	In Words	In Fig.	In Words	
	<b>PART - A : CIVIL WORK :-</b>						
<b>1</b>	Fabricating including supplying and erecting steel structure including, hoisting, fixing bolted and cutting to required length and shape, drilling holes, jointing in an approved manner etc. Complete as directed.						
(A)	For Frontal Frame.	25600.00			Kg.	One Kilogram	
(B)	For Ladder.	5500.00			Kg.	One Kilogram	
(C)	For Handgrip.	460.00			Kg.	One Kilogram	
<b>2</b>	Providing & fixing 20mm dia. Anchor fastener of 150mm length with drilling holes in concrete with all labour & materials as directed by Engineer in Charge. (Work to be done under tidal conditions)	263.00			No.	One Number	
<b>3</b>	Providing & fixing 20mm dia. Anchor fastener of 150mm length with drilling holes in concrete with all labour & materials as directed by Engineer in Charge.	136.00			No.	One Number	
<b>4</b>	Providing & fixing following fixtures to the existing 1000H Cell fenders at various location inside cargo jetty area including cost of labour and materials as directed by Engineer-In-Charge.						
(A)	40mm thick Antifriction and anti sparking UHMW synthetic resin fecia pad of required size to be fitted on top of frontal steel frame with 9 Nos. SS304 nut and washer M -16 x 60mm long stud and washers for fixing resin pad with frontal frame for frendering system. (Work to be done under tidal conditions)	214.00			M <sup>2</sup>	One Square Meter	
(B)	S.S. - 304 U-Hook of dia. 40mm x 400mm long tapper pin to be fixed in quay wall face to anchor Horizontal chain / Suspension chain / Shear chain etc, complete all labour material as directed by Engineer-In-Charge. (Work to be done under tidal conditions)	164.00			No.	One Number	
(C)	32mm dia Hot dipped galvanized high tensile stud link shear / Suspension chain with suitable length and with suitable cushion link and Hot Dip Galvanised 40/42mm D - Shackle at one end and S.S. - 304 adjustable shackle 28mm x 300mm long at the other end fixed with U-Hook of 40mm dia and 400mm long in quay wall face. (Work exclusive of cost of providing & fixing of U - hook) (Work to be done under tidal conditions)	64.00			Rmt	One Running Meter	

<b>(D)</b>	42mm dia Hot dipped galvanized high tensile stud link shear / Suspension chain with suitable length and with suitable cushion link and Hot Dip Galvanised 44 mm D - Shackle at one end and S.S. - 304 adjustable shackle 45mm x 400mm long at the other end fixed with U-Hook of 40mm dia and 400mm long in quay wall face. (Work exclusive of cost of providing & fixing of U - hook) (Work to be done under tidal conditions)	48.00			Rmt	One Running Meter
<b>E</b>	S.S. - 304 38mm x 120mm long bolt with nut and washer to the existing Base frame to Cell type fender and Cell type fender to frontal frame of fender. The work comprises of matching the halls of frontal frame and cell type fender fixing the bolt etc. complete as directed. (Work to be done under tidal conditions)	306.00			No.	One Number
<b>F</b>	S.S. - 304 38mm x 780mm long stud type anchor bolt with sleeve and approved adhesive for grouting, nut and washer for fixing the base frame or cell type fender to existing RCC muff which includes making core cutting holes in RCC muff and lifting the base frame or cell fender with hydra or crane to carry necessary weight as directed by engineer in charge. (Work exclusive of cost of base frame or cell fender) (Work to be done under tidal conditions)	77.00			No.	One Number
<b>G</b>	S.S. - 304 M48 420mm long bolt with nut and washer to the existing Base frame to Cell type fender and Cell type fender to frontal frame of fender. The work comprises of matching the halls of frontal frame and cell type fender fixing the bolt etc. complete as directed. (Work to be done under tidal conditions)	190.00			No.	One Number
<b>H</b>	S.S. - 304 38mm x 1000mm long stud type anchor bolt with sleeve and approved adhesive for grouting, nut and washer for fixing the base frame or cell type fender to existing RCC muff which includes making core cutting holes in RCC muff and lifting the base frame or cell fender with hydra or crane to carry necessary weight as directed by engineer in charge. (Work exclusive of cost of base frame or cell fender) (Work to be done under tidal conditions)	95.00			No.	One Number

5	Removing of damaged frontal frame from its position by detaching all its fixtures, cutting of all 'D' shackles and chains etc. detaching all nuts & bolts removing the frontal frame from its position and transport and unload the same at site office of contractor or at jetty office as directed by the engineer in charge. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for removal of frontal frame and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	16.00			No.	One Number	
6	Removing of damaged Cell/Cone of fender from its position by cutting or detaching all nuts & bolts and removing Cell from its position and transport and unload the same at site office of contractor or at jetty office as directed by the engineer in charge. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for removal of Cell of fender and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	21.00			No.	One Number	
7	Removing of damaged base frame from its position by cutting or detaching all nuts & bolts and removing base frame from its position and transport and unload the same at site office of contractor or at jetty office as directed by the engineer in charge. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for removal of base frame and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	13.00			No.	One Number	
8	Fixing of frontal frame to its position over cell fender which includes fixing all fixtures like 40/38mm, 150mm long BSW, SS 304 nut bolts with two washers complete as directed by Engineer-In-Charge. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for fixing of frontal frame and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	8.00			No.	One Number	
9	Hiring of Hydra of loading capacity up to 5 MT including wages for driver, cleaner and cost of fuel for 8 hours/day. The hydra should be hired for miscellaneous departmental work only , as and when instructed by the engineer in charge if required during the contract period.	146.00			Hour	One Hour	

10	Painting one coat ( excluding priming coat ) on previously painted steel and other metal surfaces with Ready mixed Bituminous paint anti-corrosive brushing to give an even shade including cleaning the surfaces of all dirt, dust, and other foreign mater. The work comprises to paint the one no. of bollard completely with all labours and materials as directed by engineer-in-charge.	3936.00			No.	One Number	
11	Lettering / overhead signs of 100mm height with radium paint of approved brand , shade and manufacture complete all labour & material as directed by Engineer in charge.	3828.00			Letter	One Letter	
12	Manufacturing, suplying and installation of Cast Iron 100 T Twin Horn Type Bollard with its accessories as per drawing given including all labour and materials etc. complete as directed by engineer in charge.	3.00			No.	One Number	
13	Manufacturing, supplying and installation of 1000H Cell Fender in good condition with no defect. The work comprises transportation, loading and unloading of cell fender at work place. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for fixing of cell fender and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	13.00			No.	One Number	
14	Manufacturing, supplying and installation of 1450H Cell Fender in good condition with no defect. The work comprises transportation, loading and unloading of cell fender at work place. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for fixing of cell fender and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	5.00			No.	One Number	
15	Manufacturing, supplying and installation of 1400H Cone Fender in good condition with no defect. The work comprises transportation, loading and unloading of cell fender at work place. The work comprises of including all machinaries such as hydra, crane or any other machinaries requires for fixing of cell fender and tools & tackles and labours requires as directed by the engineer in charge. (Work to be done under tidal conditions)	3.00			No.	One Number	

16	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.	18.00			M <sup>3</sup>	One Cubic Meter	
17	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :  1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	18.00			M <sup>3</sup>	One Cubic Meter	
18	Steel reinforcement for R.C.C. work including straightening, cutting,bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more.	1260.00			Kg	One kilogram	
19	Carrying out sand blasting with sand of suitable grade & quantity with air compressor at suitable pressure including cleaning the surface till removal of all scales, rust and other foreign materials including cost of all labour material complete as directed by Engineer in charge.	745.00			M <sup>2</sup>	One Square Meter	
20	Applying one coat of Epoxy primer over new steel and other metal surface over 10 cm in width or girth after and including preparing the surface by thoroughly cleaning oil, grease, dust and other foreign matter and scoured with wire brushes, fine steel wool, scraper and sand paper complete as directed by Engineer in charge	745.00			M <sup>2</sup>	One Square Meter	
21	Painting two coats (excluding priming coat) on new steel/ metal surfaces with epoxy paint. Brushing exterior type I to give an even shade including cleaning the surface of all dirt/ dust & other foreign matter on surface over 10cm in width /girth.	745.00			M <sup>2</sup>	One Square Meter	
	Total Of Part - A : CIVIL WORK = Rs.						

	<b>PART - B : CREDIT ITEM :-</b>					
<b>1</b>	Taking away the dismantled scrap material of various structures such as frontal frame with facia pads, base frame, and various fixtures of frontal frame on "As is and Where is" basis including cost of all labours, tools & tackles and machinaries requires for loading, unloading, transportation and making the suitable for weighment purpose etc. complete as directed by Engineer-In-Charge.	17920.00			Kg.	One Kilogram
<b>2</b>	Taking away the dismantled 1000H/1450H Cell Fender/ 1400H cone fender on "As is and Where is" basis including cost of all labours, tools & tackles and machinaries requires for loading, unloading, transportation etc. complete as directed by Engineer-In-Charge.	21.00			No.	One Number
	<b>Total Of Part - B : CREDIT ITEM = Rs.</b>					

**Contractor**

**Executive Engineer (H)  
Deendayal Port Authority**