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KAWASAKI STEEL GIHO

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Large Scale Maritime Structures Using Steel Pipe Piles

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Synopsis :

Since the construction of Philippine Sinter Plant (1974 -1977) including the largest jetty structure in the Philippines to facilitate 250 000 D.W.T ore carrier >*Kawasaki Steel has developed various port and harbor projects, utilizing high engineering careers obtained through construction of various structures of integrated steel works in Japan. In this report outline and attractive engineering performances of Kawasaki Steel in major port projects in Southeast Asia, using steel pipe piles, steel pipe sheet piles and other steel product, are introduced.

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鋼管杭を利用した大型船舶接岸構造物 ——25万D.W.T.シーバースからKPP杭棧橋での適用例——*

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Large Scale Maritime Structures Using Steel Pipe Piles

要旨

当社は1974～77年にマニラ・ミンダナオ島で25万D.W.T.

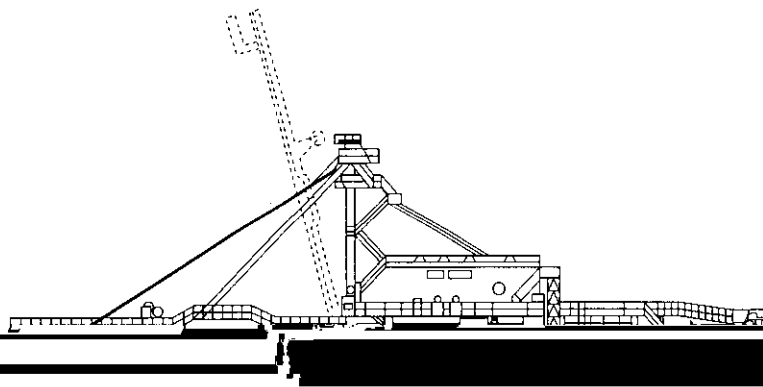


Table 1 Quantity of major material

Item	Description	Quantity	Remarks
Main berth L = 351.25 m	Steel pipe pile (Vertical) (pcs.)	195	O.D. 1 219 mm, t = 16 mm, l = 55-60 m
	Steel pipe pile (Rake) (pcs.)	76	O.D. 1 219 mm, t = 16 mm, l = 60 m
	Steel beam (t)	1 350	
	Reinforcement bar (t)	2 150	
	Concrete (m ³)	14 600	
Dolphin	Steel pipe pile (Vertical) (pcs.)	5	O.D. 1 219 mm, t = 16 mm, l = 60 m
	Steel pipe pile (Rake) (pcs.)	4	O.D. 1 219 mm, t = 16 mm, l = 60 m

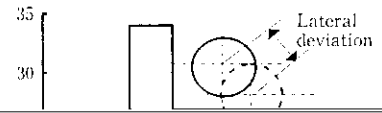
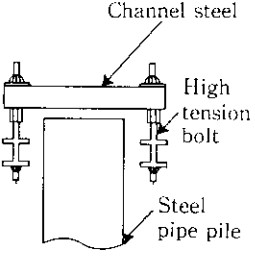
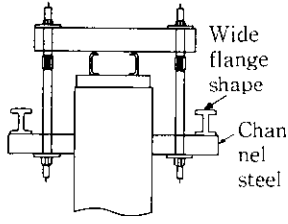
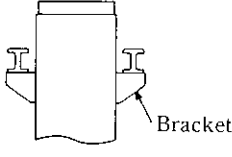
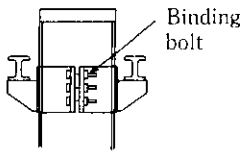


Table 2 Operation records of floating pile driving equipment

Description		Interlocked steel pipe pile	Steel pipe pile	Steel sheet pile
Dimension	(mm)	O.D. 1 200 × 15 t	O.D. 500 × 12 t	KSP VI.
	(mm)	O.D. 800 × 13 t	O.D. 600 × 12 t O.D. 800 × 12 t	

Table 4 Comparison of supporting system

Hanger type(1)	Hanger type(2)	Bracket type	Prefabricated bracket
 <p>Channel steel</p> <p>High tension bolt</p> <p>Steel pipe pile</p>	 <p>Wide flange shape</p> <p>Channel steel</p>	 <p>Bracket</p>	 <p>Binding bolt</p>
<p>* Easy installation</p>	<p>* Take stress of</p>	<p>* Take stress of</p>	<p>* Take stress of</p>