

Technology of Functional Diagnosis and Rehabilitation for Marine Structure at Manila South Harbor

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1974

1991

PDA(Pile Driving Analyzer)

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Synopsis :

Kawasaki Steel has undertaken many projects in the Philippine, starting with Mindanao Works of Philippine Sinter Corp. which was constructed in 1974. Rehabilitation project of Manila South Harbor, which is the biggest international port in the Philippines, has been proceeding by the company since 1991. Rehabilitation work in developing countries necessitates not only a structural repair but also a functional rehabilitation which is suitable for the requirements of the transportation. Rehabilitation of a port in operation is different from the construction of entirely a new port. Thus, Kawasaki Steel realized total management to conduct, in turn, divisional rehabilitation by coordinating with Port Authority and Port Operator, and finally completed this project successfully, using technology, which was cultivated in steel works constructions, such as rehabilitation technologies and PDA (Pile Driving Analyzer) etc.

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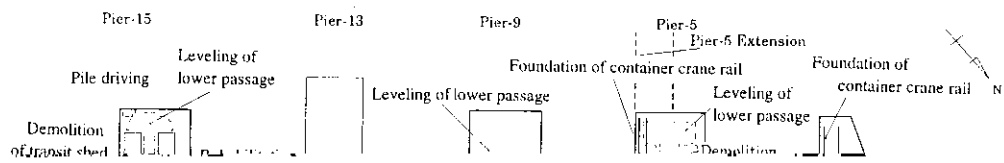


Table 2 Classification table for selection of rehabilitation methods

		Type - A	Type - B	Type - C	Type - D	Type - E
Slab	Damaged condition	Need to change reinforcing more than 10%	Reinforcing bar more than 90% Flaked area is more than 50%	Flaked area is 25 - 50%	Flaked area is less than 25%	Crack width is 1 - 3 mm Total length is less than 30 m
	Repair method	Demolish damaged portion and concreting with reinforcing bar	Demolish damaged portion and repair by shotcreting	Demolish damaged area and repair by shotcreting	Apply cement mortar	Apply epoxy mortar
	Damaged condition	Flaked area is more than 50% Both slabs are type - A	Flaked area is more than 50% One side or both side slab is	Flaked area at bottom is more than 50% Flaked area at side is more	Flaked are is less than 50%	Crack width is 1 - 3 mm Total length is less than 10 m

