ABSTRACT

THE ANALYSIS OF 17,000 DWT PORT FOUNDATION STABILITY IN PANJANG DEPOT OF LAMPUNG

By

Sugiarto

A sea port is a construction of port used by ships to anchor and rest ships to load and unload cargos and to pick and unload passengers. The stability of port foundation can be seen from the ability of the foundation to accept load carrying and many types of forces.

Forces that may influence port foundation stability include force coming from ships impacts, wind, and earth pressure ability that may happen; bearing capacity based on data end bearing pile and data friction pile, bearing capacity based on standard penetration test (SPT) and maximum shear strength of pile foundation. Based on these types of forces, maximum lateral forces and lateral pile deflection forces could be estimated.

The estimation of forces that impact in the port with capacity of 17,000 DWT in Lampung depot are as follows. The stability of pile foundation supporter in B09 point is very good, and it can be seen from amount of occurring lateral force (2,062 tons) that is smaller than planned lateral force (534,874 tons). The bearing capacity (37,530 tons) that is currently accepted is smaller than planned bearing capacity (292,968 tons). The occurring deflection force to the pile (0.000306 m) is currently smaller that allowed deflection force (0.00635 m).

Keywords : port, foundation stability, 17,000 DWT capacity