

1.2 Define of problems

Based on analysis of the above background, problems to be solved as following :

1. How to design structural of wharf with capacity 20.000 DWT ?.
2. What influences designing of wharf ?.

1.3 Objective of Study

In this thesis, considering above problems, objective of this study as following :

1. To design structure of wharf with capacity 20.000 DWT.
2. To know what influences wharf design.

1.4 Benefit of study

In this thesis, there are some benefits, as following :

1. As a knowledge and process for student in design structure of wharf
2. To improve skill in analysing structure calculation of wharf.

1.5 Scope of Problems

Scope of problems for this thesis as following :

- a. Layout of the wharf at this thesis based on layout given by PT. Paxocean as per master plan.
- b. Design of the facilities of terminal is out of topic for this thesis. All facilities already established by PT. Paxocean and this wharf is a replenishment only for particular purpose.
- c. In this thesis, the structure to be design are slab, fender, bollard and sheetpile as retaining wall.
- d. Slab is designed to resist $2,5 \text{ t/m}^2$.
- e. Rope for mooring is not designed in this thesis.
- f. Earthquake is not considering for structural analyzing in this thesis due to the location of wharf is in Batam, Riau Island, therefore earthquake is considered to be zero.