ABSTRACT

Slipway is one of the principal means of ship docking employment, to raise and lower the vessels that will be repaired. Construction of slipway is rail that mounted on a concrete foundation as the building berth, and the carriage (cradle) on it. The cradle can move on the tracks with the help of steel cables (slink) drawn by the winch. There are two types of slipway. They are slipway type lengthwise and crosswise. This study discusses the comparative study of the structure of longitudinal and transverse type of slipway to ship 3000 DWT in Maluku island of Seram. The research will be done by modeling both types of slipway using Structure Analysis Computer System (SACS 5.2). Slipway elongated type will be modeled with a length of 290 m, and width 12 m, using atil angle of 3°. While the transverse type slipway will be modeled with a length of 100 m, and width 12 m, using a tilt angle 5.7°. Maximum load to be modeled is Kabanjahe 3000 DWT ship (general cargo). By doing a comparative study (weighting method) that considers the technical aspects of construction and the power of structures, lift capacity, waterfront, material requirements, and implementation of operational security, the acquisition will be obtained by accumulated points based on weight of each criteria. From the results by weighting the total points for the type of longitudinal slipway is 97.5, while for transverse type slipway earn 84.25 points. So, the most suitable type of slipway to build in Maluku is slipway elongated type.

Kata kunci : slipway, cradle, SACS 5.2.