

ABSTRACT

Indonesia as an archipelago with vast ocean area requires a reliable means of transportation used to connect the island to the other islands. Ships as a means of transportation is expected to facilitate marine transportation in Indonesia.

PT. Dok & Perkapalan Kodja Bahari is a company engaged in the maritime industry. One of the boats produced by this company is the development of a capacity of 1500 DWT tanker. In order to improve maritime industrial sector, it is necessary to do the calculation of estimated life cycle costs and revenues and optimization of ship life. Given these estimates can be used as an estimate and the owner of this model can further determine the optimum life of the ship.

General Life-Cycle Maintenance Cost / Earning Models is a model which is related to the structure of the vessel to calculate the cost of production, cost of periodic maintenance, fuel costs, operating earning and the selvage value of the ship.

Based on General Life-Cycle Maintenance Cost / Earning Model, estimates the cost of a capacity of 1500 DWT tankers for 25 years is comprised of production costs is Rp 81,130,854,370.50, Periodic maintenance cost is 17,062,281,587.94, Fuel oil cost is Rp 219,920,888,247.38. And estimated earnings on this model consists of the operational cost is Rp 354,061,400,137.42 and dismantling cost is Rp 1,880,069,911.96. So estimation Life cycle maintenance cost / earnings for tankers of 1500 DWT for 25 years is Rp 37,827,445,843.56. While the age of optimum ship tankers of 1500 DWT based GLCMC model is 14 years old.

Keywords: General Life-Cycle Maintenance Cost / Earning Models, tankers, tankers of 1500 DWT, annual life cycle cost, optimal vessel age