

# **CATAMARAN TYPE PASSENGER SHIP DESIGN IN RUPAT ISLAND - BENGKALIS**

*Author Name : Lery Boswel*

*Student of number : 1103201210*

*Supervisor : Muhammad Helmi, ST.,MT*

## **ABSTRACT**

*The people of Rupert Island are known as people whose residents often travel outside the island. So we need a ship that can not only carry passengers but can transport the luggage of these passengers. Based on the survey results that have been carried out, the problem that occurs is the load capacity for passengers. Therefore the researcher wants to develop and update the ship by designing a ship that prioritizes cargo capacity and also renews the hull by replacing the monohull ship with a catamaran hull. With a capacity of 30 people, the main size of the ship is obtained,  $L_{wl} = 13.77$  m,  $L_{pp} = 13.24$  m,  $B = 4.63$  m,  $H = 1.54$  m,  $T = 0.98$  m,  $V_s = 17$  knots. The process of making the hull using the Maxsurf Modeler Advance, then modified using Autocad to get the Lines Plan design, and General Arrangement. From the General Arrangement design, a miniature size is obtained, length = 50 cm, width = 12 cm, total height = 17,4 cm. In the stability review, the results of the stability analysis using the maxsurf stability software from 4 load case conditions that meet the IMO standard criteria.*

*Keywords: Passenger Ships, Catamarans*