DESIGN OF A MULTI-PURPOSE CATAMARAN SHIP FOR FERRYING BETWEEN BAWEAN ISLAND-GRESIK IN A CASE OF EXTREME WEATHER

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Abstract

Marine transport is paramount for a smooth economy for the island societies. It is also perceived Baewan societies. Marine transport became a means to advance regional economy and equitable development. An obstacle often faced is to ferry Gresik-Baewan in case of a bad weather condition when the sea is very dangerous for shipping.

Therefore here a multihull-typed ship will be designed which was a kind of ship with two hulls called catamaran. The method of ship comparison was taken as the primary measure planning of this trimaran. Then the pre-planning form of this ship or linesplan was made with the displacement correction of the comparing ship. Then the resistance of the ship was calculated to determine its power. The next step was making the general plan and analysis of stability.

In this case, some models would be made and will be tested by seekeeping method, then a good design of them was chosen. From the first model we have got LwL = 20 m, B = 8 m, T =0.9, Displacement = 40 tonnes and the ship's speed is 20 Knots

Key words: catamaran, multi purpose.