ABSTRACT

THE OPTIMIZATION OF FISHING VESSEL DESIGN BY QUANTITAVE SYSTEM FOR BUSINESS (QSB) SOFTWARE:
CASE STUDY PROBOLINGGO COASTAL

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Abstract

Indonesian had good talent in building vessel. They can be proved where every region has different characteristic. Techniques that they use were transferred from their generation before them. And the generation gets the techniques from their generation before them too. So it’s not surprising if a vessel is made almost the same in certain regions. In other side, techniques in designing ship in moving forward. Principal dimension has big influence in the ship’s performance. The research combines Probolinggo’s fishing vessel data and theory at ship design. Researcher use Software Quantitative System Business (QSB) which is usually used to use in optimization design process. Optimization process, beginning with the determination of variables, constraints, and the objective function of optimization process, namely to obtain the minimum of building cost. And the optimization result for Probolinggo’s fishing vessel are length (L) 14.24 m, breadth (B) 4.84 m, depth (D) 1.52 m, speed (Vs) 9 knot, coefficient block (Cb) 0.63, draught (T) 1.29 m, length deck house (Ldh) 2.6 m, height deck house (Hdh) 1.86 m, and breadth deck house (Bdh) 1.53 m.

Keywords: optimization, design, fishing vessel, principal dimension, QSB