

# **COMPARATIVE STUDY OF THE HULL PERFORMANCE OF SYMMETRIC AND ASYMMETRIC AXE-BOW TYPE CATAMARANS FOR A TOURISM VESSEL CASE STUDY**

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*This study aims to analyze the comparison between symmetric and asymmetric hull variations of the axe-bow type design, addressing the issues faced by tourist boats traveling to Beting Island, Aceh. The method used involves redesigning the vessel with additional configuration variations and conducting analyses using Maxsurf software to evaluate resistance, flow patterns, and seakeeping performance. The results show that the symmetric hull performs better than the asymmetric hull. The symmetric design is able to reduce total resistance and improve the vessel's seakeeping performance. Therefore, this new design is expected to provide valuable insights for future developments.*

*Keywords: axe-bow type vessel, flow pattern, resistance, seakeeping performance.*