

AXE BOW TYPE PATROL SHIP PLANNING FOR MALACA STRAIT (BENGKALIS DISTRICT)

Name : Muhammad Suhaimi
Student Number : 1103181092
Advisor : Muhammad Ikhsan, ST.,MT

Abstract

Marine patrol boats are types of ships such as customs ships, water police ships, TNI warships or KRI. which operates in the national border area, this ship maintains security at sea from the smuggling of illegal goods, in the waters of the island of Bengkalis precisely in the Malacca strait, it is vulnerable to the smuggling of illegal goods that cannot be eradicated on this bengkalis island, namely narcotics. Therefore, in this case the author found the idea to plan a patrol boat with the bow innovation which has small obstacles for the waters of the island of Bengkalis. The method used is the ship's performance with the design process, resistance, ship stability that must comply with IMO criteria. The main data obtained for patrol boats are, LOA = 34.46 meters, B = 6.58 meters, H = 3.3 meters, T = 1.725 meters and Vs = 30 knots. This ship has a relatively small resistance compared to other ships of approximately the same size, this ship can travel at a speed of 30 knots with a power of 3000 hp. Likewise, stability according to the IMO criteria, this patrol boat meets these standards. In terms of the comparison of fuel and ship speed with the same ship size category, this planning ship is 39.943% more fuel efficient, while by consuming the same engine power this ship is 16.67% faster.

Keywords : Marine patrol boat, KRI ship, Customs ship, Barriers, Stability