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Analysis of The Propulsion System Towards The Speed Reduction of Vessels Type PC-43 Arica Dwi Susanto¹, Ahmadi², Okol S Suharyo³, Indrajaya Gerianto⁴ 1 Indonesian Naval Technology College, Bumimoro-Morokrembangan, Surabaya 60187, Indonesia ABSTRACT (PC-43) is an Indonesian navy vessel type limited patrol craft made in Indonesian. The vessel was designed using a steel material with a maximum speed of 27 knots and using engine power by 3 x 1800 HP, T = 1.40 at the empty draft and T = 1.70 at full draft. The speed is decreased in the current conditions by 22 knots at 1.50 meters draft within 1 year after its launching.

This fact is very interesting to be used as a paper project by analyzing the effect of changes in vessel's draft to the resistance and analyze the current installed engine power, This paper carried two methods of calculation, namely: resistance and power calculation numerically along with resistance and power calculation using software maxsurf. The results from the manual calculations of power at T = 1.65 meters in 27 knots, the power needed is BHPscr = 4245.04 HP.

From the data of power installed in the vessel, it was stated that the power is 3 x 1800 = 5400 HP, means a mathematical/theoretical speed of 27 knots can be achieved. Thus, the resistance and power is not one of the causes of speed reduction in Vessel Type PC43. Keywords : Ship Resistance, Power Boats, Patrol Craft, Sea Trial

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