

## ABSTRACTION

**Much Raditya Bima Setyawan**, 2017, NIT: 49124605.T, “*Effect of maintenance sea water cooling pumps for main engine in MT.Sungai Gerong with methods Fault Tree Analysis*”, thesis Teknika Studies Program, Program IV, Polytechnic Semarang, Supervisor I: Sarifuddin, M.Pd,M.Mar.E, Supervisor II: Capt Suherman,M.Mar.

One of the factors supporting the smooth operation of the ship is the prime mover engine performance. In the process works, so that the ultimate driving machine can work optimally influenced by many things, one of which is a seawater cooling system on the ultimate driving machine. With the existing problems are the factors that cause the coolant pump does not work optimally, the impact that occurs when the coolant pump is not treated properly and what benefits derived from treatment of the coolant pump to the main engine work.

Given the importance of the main propulsion diesel engines on the boat, it is necessary the appropriate method to determine the effect of treatment of seawater cooling pumps to the main engine work. By using the method of fault tree analysis is the method of making the fault tree as a search cause of the problem, and also coupled with the observation interviews, and literature. And also used descriptive qualitative method to determine causes, impacts, and benefits.

From the discussion it could be concluded that the factor that cause seawater cooling pump is not working optimally is the lack of suction and pressure at the pump, reduced pump working, mechanical seal problems. Its impact on the main engine when the coolant pump sea water is not treated properly, namely temperature

main engine is high, the engine turns holding down movement and thermal expansion of the material due to the exposure to excessive heat as the benefits of treatment are normally pressure pump, pump can work with optimal, eliminate leakage at the pump

**Keywords :** *Effect of maintenance sea water cooling pumps, fault tree analysis, Maintenance, Improvement and Advantage*

