

## ABSTRACT

**Al. Agre Wastu**, 2017, NIT: 50134959 T, "*The analysis of reduced freshwater production which is resulted by Fresh Water Generator At MT. Hippo using SWOT Analysis Method* ", thesis of Technical Department, Diploma IV Program, Semarang Merchant Marine Polytechnic, Supervisor I: H. Amad Narto, M.Pd, M.Mar.E, Supervisor II: Nita Setiyaningsih, S.Pd., M. Hum.

Fresh Water Generator is one of the auxiliary engines on board that serves to convert sea water into fresh water by distillation in a state of vacuum for fresh water supply. fresh water aboard is essential for crew accommodation and also for smooth work or machinery on ships that use fresh water for cooling media or for other purposes. The working principle of Fresh Water Generator is to separate the salt content in seawater by evaporating it in the vacuum room so that water can evaporate below 100°C. Problems and disturbances in the Fresh Water Generator will affect the amount of freshwater production, therefore the condition of the auxiliary machinery should be kept as good as possible.

In this research, the writer uses descriptive qualitative research method as arrangement of this thesis and uses SWOT method as data analysis technique to analyze existing problems at Fresh Water Generator, that is looking for what factors cause the decreasing of freshwater production result at Fresh Water Generator and what efforts can be done to overcome these problems by identifying various factors systematically on strengths, weaknesses, opportunities, and threats. These factors are processed so that the strategy will be obtained to overcome these problems.

Based on the results of research that has been done on the ship MT. Hippo, it can be concluded that the decrease of freshwater production at Fresh Water Generator is caused by four factors, 1) Safety Valve not working properly, 2) Evaporator plate condition is crusted, 3) Steam heating media condition is unstable so potentially cause overheating, 4) Chemical Cleaner is not available. To overcome these factors, it can be done by improving the Safety Valve and check the pressure on a regular basis, doing maintenance and cleaning Fresh Water Generator more often than has been scheduled on Planned Maintenance Schedule.

**Keywords:** Fresh Water Generator, Evaporator, SWOT.