

ABSTRACT

Heru Abidin, NIT.51145474.T, 2018, "*The effect of a vacuum that is not optimal for the production of fresh water on a fresh water generator in the MV. Anggrek* ", Studies Program Diploma IV, Technical Merchant Marine Polytechnic Semarang, 1st Supervision:H. Rahyono, SP.1, M.M., M.Mar.E., 2nd Supervision:Capt. Hadi Supriyono, M.M., M.Mar.

Fresh Water Generator is an aircraft that functions to convert sea water into fresh water through a process of evaporation and condensation. So that it is expected that with the installation of this device on board can reduce ship dependence on freshwater supply from land. But the reality in the vacuum field that is not optimal at the Fresh Water Generator affects the freshwater productivity due to the impermeability of packing, the lack of pressure on the ejector pump and the narrowing of the ejector nozzle which can cause fresh water production to drop.

The research was carried out on MIURA Fresh Water Generator type WM-15SS on vessel MV. Anggrek for 12 months when the author carried out the practice of the sea. Data sources used in the preparation of this thesis include primary data obtained directly from the research site, as well as secondary data obtained from the literature related to the thesis title. While the type of method that I use is the SWOT Analysis and fault tree analysis, which aims to determine the most influential factor in the cause of the vacuum that is not optimal and the events that exist in the problem. Data sources obtained directly from the ship are interviews with the Chief Engineer and 3rd Engineer and documentation related to this research.

Based on the results of this study concluded that the cause of the impermeability of packing is due to the use of packing and improper installation and lack of cleaning when replacing new packing. The cause of the lack of pressure on the ejector pump is due to blockage of the filter in the ejector pump suction and decreased impeller performance. The cause of narrowing of the ejector nozzle is due to the impurities that attach to the ejector nozzle.

Keywords: Fresh Water Generator, Vacuum, Ejector