

ABSTRACT

Muhammad Ryan Sanjaya Habibi, 2018, NIT : 50134915 T, “*Analysis of fault safety devices (fuses) on the installation of anti-heeling electric motors in the MV. ORIENTAL RUBY*“ Thesis of technical department program Diploma IV, Merchant Marine Polytechnic of Semarang, Mentor I : Drs. Edy Warso Purnomo, MM., M.Mar.E, Mentor II : Okvita Wahyuni, S.ST., MM.

Anti heeling is the system control of servo that made to keep ship in order to be in the position of horizontal when loading and discharging. Anti heeling can not used as the stabilization in open sea. This system only can be use in port , because the response time is slow. The system control of anti heeling used for detecting the angle of heeling ship and to stabilizing ship automatically with pumping the water ballast from starboard side to port side or the opposite . Especially for container ship , ro-ro carrier and ferry. This system is prevent the critical orientation ship because cargo effect. There is two system of anti heeling that used in the ship that is pneumatic and water pump. The purpose of this research is to find the solution of anti heeling performance automatically when the process loading and discharging and the consequences.

The method that used in this research is method of qualitative and descriptive in the form of statement and reverence from the expert or former researches and the result of observation along with the result of the interview from the sources, and to take decision the writer used SWOT analyze to strengthen which variable that have big influence toward the anti heeling performance.

According to the data that have been received, the writer did discussion problem about low insulation, the speed of opening valve and fuse installation error that have big influence with the smoothness of operation anti healing pump and component-component in that installation, pairing the safety electric tools have max limitation and minimum limitation pairing, over coming the damage because low insulation and error installation there are many ways that is with pairing the fuse that suitable with the current and voltage also set the conduction or cable with the size that match with the current conductivity ability (KHA) and become coil cable on electro motor not moist. According to the discussion we know that pairing fuse 16 ampere have significant effect towards the installation work and will not cause any bad effect in long term and the type of fuse must match with the standart maker anti heeling type of Frank Mohn A/Swater pump system, fuse type ETI DZ Flink.

Key Word: Analyze, Fuse, Anti heeling.