

ABSTRACT

Andrianto, 2018, "*Identification decreased work auto filter backflush fuel oil on the main engine on MV. KT 02 by using the method fishbone and fault tree analysis (FTA)*," Technical Departement Program, Diploma IV Program, Technical, Semarang Merchant Marine Polytechnics, Supervisor I: H. Amad Narto, M.Pd., M.Mar.E., Supervisor II: Nur Rohmah, S.E., M.M.

Auto filter backflush fuel oil is an automatic filter that filters fuel oil from dirt and other substances like sand, water using pressurized air during its scavenging process. When the vessel is sailing from Suralaya to Tanjung Bara, alarm of the auto filter sounds continuously due to failure of dirty oil flushing, with the decrease of auto filter backflush fuel oil decreasing fuel oil supply to the main engine, so it disturbs the main engine's operation. The goal of this research is to reveal the factors, the causes, and the countermeasures to resolve the decrease of auto filter backflush fuel oil performance.

The methods used in this research are Fishbone and Fault Tree Analysis by collecting factors causing the hazards to the object being researched. In Fishbone factor, it can be resolved with 4M that are Machine, Materials, Methods, and Man factors, while in Fault Tree Analysis, it is effective to find the core of the problem from a failure spot with top down approach started with failure assumption, or disadvantage from the top event.

The results showed that the factors influencing the decline in the performance of the auto fuel oil backflush filter on the main engine in MV .KT 02 were not optimal pneumatic systems during the reverse rinsing process, no maintenance plan procedures (planned maintenance systems) were carried out. when damage occurs, the quality of the fuel. The impact was due to the decrease in the work of the auto fuel oil backflush filter on the main engine in the MV. KT 02 is, does not occur automatically in automatic filters, disrupting shipping when the sea-sailing vessel is hampered by the flow of fuel to the main engine. Efforts were made to overcome the decline in the work of the backflush fuel oil auto filter in the MV. KT 02 in order to work normally is the right system by checking and maintaining components, performing maintenance procedures in accordance with the plan maintenance system (planned maintenance system), improving the quality of fuel by fuel oil treatment

Keywords : Identification, auto filter backflush fuel oil, main engine.