## **ABSTRACT**

Andre Galih Pri Hartarto, 2018, NIT: 50134987.T, "Identifikasi Penyebab Terjadinya Over Flow pada MDO Purifier di MV. Tanto Bersatu", Skripsi Program Studi Teknika, Program Diploma IV, Politeknik Ilmu Pelayaran Semarang, Pembimbing I: Achmad Wahyudiono, M.Mar.E. dan Pembimbing II: Capt. Suherman, M.Mar.

The purpose of this study is to discuss the causes of over flow in MDO purifier, Purifier on the ship is one of the auxiliary machines that have a very important role to separate the fuel from water and sludge. The usefulness of this clean fuel is to support the operation of the generator engine to produce perfect combustion, so that damage to the engine due to the use of unclean fuel can be reduced.

The method that will be used for this research is Fishbone Analysis method or Fish Bone Diagram is one of method in improving quality. Also often this diagram is called a cause-effect diagram or cause-effect where this diagram uses verbal data (non-numerical) or qualitative data. Fault Tree Analysis is a technique used to identify risks that contribute to failure. This method is done with a top down approach, which begins with the assumption of failure or loss of the event of the peak (Top Event) and then detailing the causes of a Top Event to a root failure (root cause).

The results obtained from this study indicate that the cause of over flow is the occurrence of dirty bowl, deadlock on the nozzle and wear on the Main Seal Ring can adversely affect the work of the Purifier. This is characterized by a non-normal purification process in the MDO Purifier which results in clean fuel not coming out through the fuel outlet, which is often called over flow. To overcome the above problems do the cleaning and maintenance periodically / periodically against the bowl and nozzle is really maintained especially the cleanliness of the mud on the bowl and crust that can lead to deadlock on the nozzle, if there is a deadlock then immediately cleaned and treated, and replace the Main Seal Ring with a new one before its working hours.

Keywords: over flow, purifier, nozzle, bowl, main seal ring