

## **ABSTRACT**

**Falatansa Insan Kautsar**, NIT, 49124510T, 2017, "*Influence a reduction of scavenge air against working Main Engine with method Fishbone and Hazop at MV. EGS TIDE*" Diploma IV, Technical, Semarang Merchant Marine Polytechnic, Preceptors I: Heri Sularno M.H, Mar.E., Preceptors II: Sri Murdiwati S.Sos, M.Si

The propulsion MV. EGS TIDE driven by main engine 2-stroke. When running, Main engine need a *scavenge air* as part of combustion. The background of this thesis is the problem in main engine scavenging. The purpose of this study was to determine the factors that cause a reduction of scavenge air in main engine and effort made to prevent reduction of *main engine scavenge air*

The method used by author is *Fishbone* and *Hazop* is taking the factors and risk of hazard against an object study. Research result using identification problem which appear from a system and optimize with a factor and optimizing with factor human relationship. *Fishbone* factor accepted of 6 M, that is *Machine* from engine or technology, *Method* is method or process, *Material* is consumption material. *Man power* is power or physical, *measurement* is inspection, *milleu* is environment

The results obtained in research is a factor causing a reduction of scavenge air in main engine is dirty *intercooler*, dirty *scavenge trunk*, dirty sea water, and dirty of *turbocharger* blade. Effort to being made prevent the reduction of *scavenge air* in *main engine* is carry out *intercooler* maintenance, cleaning to the *scavenge trunk*, cleaning to the *sea chest* an *turbocharge* blade

**Keywords:** *Scavenge air, Main Engine, Teori Fishbone, Teori Hazop*