

## **ABSTRACT**

**Asnan Rois Mabruri**, 2018, NIT: 51145465 T, “*Influence of Exhaust Gas Economiser's Performance's Decrease and that Effect Steam Production at voyage at MV. Oriental Ruby*”, Technical Thesis, Diploma IV Program, Merchant Marine Polytechnic Semarang, Material Adviser (I): Sarifuddin, M.Pd., M.Mar.E. Methodologi and Writing Adviser (II): Dodik Widarbowo, M.T.

*The Exhaust Gas Economizer is a device which used to generate steam by using waste heat from the main engine exhaust gas casing and hot purification machine. Lack of steam production when using EGE at voyage in MV. Oriental Ruby fire A / E turbine generator not applicable, thus it is necessary to have additional power source to fit on reefer container. To cope while the Engineer uses two diesel A / E generators to meet the source requirements. The purpose of this research was to look at its impact on steam production at the time of voyage in MV. Oriental Ruby and to find out what can be done to improve EGE's performance on steam production at voyage in MV. Oriental Ruby.*

*This research uses fisbone and fault tree analysis is looking for the root or the problem. Data collection is done by interview, documentation, observation by observing at maintenance and repair time in MV. Oriental Ruby.*

*After identified the impact of EGE on steam production at the time of voyage in MV. Oriental Ruby is an inactive A / E turbine generator at sea voyage and sparks due to soot build up in EGE. Efforts are made to improve EGE performance on steam production during sea passage in MV. Oriental Ruby is analyzing where leak may occur at EGE system, by overhauling the high pressure boiler circulating pump, replace the mechanical seal at pump, and keep watch the leakage area every day at voyage or at port.*

**Keywords:** *Steam, Exhaust Gas Economizer, Sea passage.*