## **ABSTRACT**

Muhamad Dafit Heru Prasetyo, 2018, NIT: 51145321 T, "Feed Water Pump Optimization Performance In Boiler With Fault Tree Analisys Dan Fishbone Methods in MV. Sinar Praya", Technical Study Program, Diploma IV Program, Politeknik Ilmu Pelayaran Semarang, CounsleourI: F. Pambudi Widiatmaka, S.T, M.T., M.Mar.E, Councelour II: Capt. H. Moh. Aziz Rohman, M.M. M.Mar,.

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Ship is one of the most effective alternative transportation right now. At present, almost vessels use auxiliary boiler for various activities on board but a ship that is specifically not used it. Reducing steam on board will disrupt ship operations. Therefore need improvement performance. Boiler feed water pump is very importance that boiler can running or operating well.

Boiler can operating or running well therefore need good performance repair. One of the auxiliary boiler components that to move fluid or liquid from one place to another through pipe, boiler feed water pump not have optimal performance causes of bearing failure, there are leakage in mechanical seal and there are cavitation in pump

Boiler feed water pump is auxiliary engine on ship which have important role for fill the water from cascade pumped into the boiler. Author talk about optimization feed water pump work using fishbone and fault tree analysis methods, using two combined methods can find causes of the problem what happens and know the root of the problem what happens.

**Keywords:** optimization, boiler feed water pump, fishbone and fault tree analysis methods.