ABSTRACT

Ahmad Akbar Nur Cindy, 2017, NIT : 49124530 T, "*Analisis kerja air starting valve mesin induk yang tidak normal dengan metode Fault Tree Analysis di MT. SANGA – SANGA*", Diploma IV, Technical, Semarang Merchant Marine Polytechnic, 1st Advisor ; H. Mustholiq, M.M., M.Mar.E., 2nd Advisor : Nita Setiyaninngsih,S.Pd., M.Hum

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Main engine on MT. SANGA – SANGA works based on the principle of 2 stroke where the first step of this engine is by air start. The background of this thesis is the problem in air starting valve system in the main engine. Abnormality of air starting valve. Formulation of the problem in this research is the causing factor of abnormality air starting valve and the effort to normalize air starting valve. Goal of this research is tho find the causing factor of abnormality and the effort to normalize air starting valve.

The research result is the causing factor of starting valve abnormality is the condition of pejala air instalation system in the main engine and wear and tear on distribution valve, the problem discussion by conducting maintenance on pejala air instalation, clean up the filter and drain the air bottle before starting the main engine, also conducting maintenance for air starting valve.

The conclusion of this research is the causing factor of air starting valve abnormality is the elastic spring on starting, wear and tear on the piston ring and seating starting. The effort to normalize air starting valve is conducting maintenance on air start instalation piping system, clean up the starting spring, maintenance on piston ring and seating on starting valv. Suggestion that can be given is the annual maintenance must be increased and well recorded on maintenance journals and keep conducting further research about the problem in air starting valve system in the main engine regarding the time limit and author knowledge.

Keywords **:** Analysis, Engine Starting, Air Starting Valve, Fault Tree Analysis Method