

## ABSTRACT

**Rickyongam Mandala Putra S**, NIT. 49124524. T, 2017 “*Identification of The Fire in Scavenging Air Box at Diesel Engine in MT. Karmila with Fishbone Analysis Method*”, Diploma IV, Teknika, Politeknik Ilmu Pelayaran Semarang, Preceptor I: A. Agus Tjahjono, MM, M.Mar E and Preceptor II: Capt. Ali Imran Ritonga, M.M., M.Mar

*A number of different scavenging methods are in use in slow speed two stroke engines. In each the fresh air enters as the inlet port is opened by the downward movement of the piston and continues until the port is closed by the upward moving piston. The flow path of the scavenge air is decided by the engine port shape and design and the exhaust arrangements. Formulation of the problem in this study is the factors that fire in scavenging air box in Diesel Engine, cause of fire in scavenging air box Diesel Engine, And how to overcome to fire in scavenging air box in Diesel Engine.*

*The method used by the author is the method of fishbone. A cause and effect diagram, often called a “fishbone” diagram, can help in brainstorming to identify possible causes of a problem and in sorting ideas into useful categories. A fishbone diagram is a visual way to look at cause and effect. It is a more structured approach than some other tools available for brainstorming causes of a problem (e.g., the Five Whys tool). The problem or effect is displayed at the head or mouth of the fish. Possible contributing causes are listed on the smaller “bones” under various cause categories. A fishbone diagram can be helpful in identifying possible causes for a problem that might not otherwise be considered by directing the team to look at the categories and think of alternative causes. Include team members who have personal knowledge of the processes and systems involved in the problem or event to be investigated.*

*The research, fire in scavenging air box in Diesel Engine caused by several factor, slow combustion in the cylinder, owing to incorrect atomization, or misaligned fuel jets. Blow back through the scavenge air ports, owing to an incorrectly adjusted exhaust cam disc or large resistance in the exhaust system(back pressure). Advice can be given is to improve the care of the scavenge with the instruction manual book and carry out maintenance planned in the Diesel Engine in the scavenging air box.*

*Keywords: scavenge air box system in Diesel Engine, Fishbone method, Planned Maintenance*