ABSTRACT

Muhammad Adam Saputra, 2018, NIT: 50135002.T, "*Identification of damage to the Stern Tube seal in the MV. Tanto Pratama* ", thesis of the Technical Study Program, Diploma IV Program, Semarang Sailing Science Polytechnic, Advisor I: Achmad Wahyudiono, MM., M.Mar.E., Advisor II: Dr. Eko Nugroho W, MM., M, Mar, E.,

Stern tube is a steel tube mounted inside the structure of a ship that aims to support and surround the drive shaft that penetrates the hull of the ship. The stern tube system used is a lubrication system with lubricating oil and bearings installed which are bearings made of white metal material (metal babbit), also given seals made of rubber (rubber). Leaks on the stern tube will occur if the stern tube is in abnormal condition.

The method that will be used for this research is the Fishbone Analysis method is one of the methods in improving quality. Often this diagram is also called a causal diagram or cause-effect diagram where this diagram uses verbal (non-numerical) data or qualitative data. Fault Tree Analysis is a technique used to identify risks that contribute to failure. This method is carried out with a top down approach, which begins with the failure or loss assumption of the Top Event and then specifies the reasons for a Top Event to arrive at a root cause.

Based on the results of research conducted by the authors on the ship, it can be concluded that damage to the seal on the stern tube is caused because the lubricating system is not optimal can result in dirty oil filters, less optimal cooling system can be caused due to dirty cooler due to dirt clogging and seal working hours exceeding the maximum limit the result of the company did not change the component.

Keywords: propeller tubes, propeller tube seals, fishbone, fault tree analysis.