ABSTRACT

Riska Dwi Saputro, 50134918 T, 2018 "Identification of the cause of low compression on main engine cylinder number 2 and 3 at MT Fortune Glory XLI with SWOT analysis method" Program Diploma IV, Teknika, Politeknik Ilmu Pelayaran Semarang, supervising professor I F. Pambudi Widiatmaka, ST., MT. and Supervising professor II DR. Capt. Sahabuddin Sunusi, MT., M.Mar.

Main engine at MT. Fortune glory XLI is a Diesel engine 2 tak with 6 cylinder. When sea voyage from Tg. Uban to Cilacap the exhaust gas of main engine has a high temperature increase. A high exhaust gas is visible on the thermometer contained in cylinders 2 and 3 which is normally between 300 - 400 °C reach over 500°C. Seen also on the monitor that the compression pressure cylinders 2 and 3 decreased from normally between 30 until 40 Kg/Cm² to be less than 30 Kg/Cm².

In this case, author use SWOT analysis method, this methode use to solve thr problem based on some factor analysis, Strength, Weaknesses, Opportunity and Threats by using strategies that determined correspondence by result of SWOT analysis method sistematically. That goals to solve the problem based on strategy and critical success factor on SWOT method.

There are many causes of the effect of low compression pressure so the combustion on the cylinder not optimal, some of the causes of these causes include was broken piston rings, worn piston, worn cylinder liner, Etc. From several factors analyzed to derive a major factor of low compression pressure at MT. Fortune Glory XLI. After the analysis turned out low compression pressure caused a broken piston rings caused lubrication that is not optimally at cylinder liner. Because lack of lubrication causes direct friction between ring piston and cylinder liner and causing piston rings to wear out even cracked or broken. So the compression pressure become low and affects the performance of the main engine.

 $Keywords: Piston\ rings,\ Cylinder\ liner,\ Compression,\ Performance\ of\ main\ engine.$ Top of Form