

## ABSTRACT

**Yusuf Saputra**, NIT. 50135043.T, 2017 "Identification the Influence of Intercooler Work on Rinsing in main engine at MV. DK.01 with Ultrasound Method ", Diploma IV Program, Teknika, Polytechnic of Semarang , 1<sup>st</sup> Supervision : Achmad Wahyudiono, MM and 2<sup>nd</sup> Supervision: Capt.I Kadek Laju.SH, MM, M.Mar.

Intercooler is a tool that serves to release heat. Used to cool the air from the turbocharger. The shape of the intercooler is a special round or flat tube shape with an anti-rust material, dilengkapi with aluminum fins. The working principle of Intercooler is the air of the blower tangent to the cooling water pipes, so that the hot air will be absorbed by the flow of air conditioning. At the air velocity coming out of the intercooler can be lowered to 5oC to 10oC, to obtain an effective pressure of about 10 kg / cm<sup>2</sup>, an increase of 0.5 kg / cm<sup>2</sup> is required. It can be concluded that Intercooler is an important component in diesel motors to regulate the temperature and also increase the quality of air coming in the combustion chamber.

The method used in this thesis is qualitative descriptive method with ultrasound as a method to determine the priority of the problem. The reason of the formulation of this problem is what factors can supply air from the intercooler minus, the effect of decreasing the supply of air rinse from the intercooler entering the cylinder And What efforts are being made to improve the intercooler work.

From the results of this study concluded that the Influence of Intercooler Work Against Rinsing on Machine Mains. Caused by the decreasing factor in the supply of air entering the cylinder is reduced, the effect of reduced air supply rinses from the intercooler into the cylinder, and the effort made to optimize the intercooler work is to check and clean the intercooler regularly by applying the PMS system (planned maintenance system).

Keywords: Influence Work Intercooler, Main Engine, USG.