

ABSTRACT

Relly Feroza, 2018, NIT: 50135007. T, "*Analysis of the Effect of Circulating Pump and Burners on Thermal Oil Heater Performance and Strategies for Optimizing the Performance of Thermal Oil Heaters in MT. Sei Pakning* ", Technical Study Program thesis, Diploma IV Program, Merchant Marine Polytechnic of Semarang, 1st Supervisor: Dr. A. Agus Tjahjono, MM., M.Mar. E, 2nd Supervisor: Andy Wahyu Hermanto, MT.

The purpose of this study was to determine the relationship of Circulating Pump and Burner with Thermal Oil Heater Performance, and to determine the strategy of Optimizing Thermal Oil Heater Performance in MT. Sei Pakning.

The research method used by researchers in addressing the problem is SPSS analysis and by generating quantitative data to describe and describe the object under study, with data collection techniques based on questionnaires using a Likert scale and documentation. Researchers used validity test, reliability test, normality test, heterokedatitas test, multicollinearity test. The analytical method used is simple regression analysis, multiple regression and SWOT.

The results showed (1) B1 (correlation coefficient X1) of 0.314 so that the circulating pump has a positive effect on the performance of thermal oil heater 31.4% and is weak (2) B2 (correlation coefficient X2) of 0.562 so that the burner has a positive effect on performance thermal oil heater 56.2% is medium (3) B3 (correlation coefficient value X1 and X2) shows that the magnitude of the coefficient of determination shown by the R Square value has a value of 0.808, this means that the variable thermal oil heater performance can be explained by the circulating pump and burner are 80.8% and medium in nature while the rest is explained by other factors not examined in this study, thus it can be concluded that the circulating pump and burner for thermal oil heater performance are very strong. (4) From the results of the SWOT strategy in optimizing thermal oil heater performance in MT. Sei Pakning is: minimizing the reduction of problems in the thermal oil heater, improving the skills of the Engineer in the operation and repair of the Thermal Oil Heater.

Keywords: Thermal Oil Heater, Circulating Pump, Burner, SPSS, SWOT