

## ABSTRACTION

**Victoria Handiyan Putra**, 2016, 49124674. T, "Analysis of the failure of combustion in the boiler Burner in MV.Ultra Cory with Analytical Hierarchy Process", Diploma Program IV, Teknika, Sailing Semarang Polytechnic Sciences, Supervisor I: A.Agus Tjahyono, MM, M.Mar.E and Supervisor II: Febria Surjaman, MT.

Auxiliary boiler is a machine used to produce pressurized steam that is needed in the ship. This type of boiler is twofold boiler water pipes and boiler pipes fire. Boiler to work optimally should be supported by a number of factors, including the most important factor is burning. Burner is a major in the burning, if a problem occurs at the burner will greatly affect the performance of the boiler. Thus the need to know any thing that may cause interference on the burner ignition.

Burner as the main components must be able to work properly, it is necessary for the optimal treatment in parts Burner faithful. Care must be tailored to the Manua book on the type of boiler on board and spare parts in accordance with the data contained in the book. In this case the author using AHP (Analytical Hierarchy Process), where this method to determine the most influential factor in the failure of combustion in the boiler burner. As for the data taken from research conducted aboard the MV. ULTRA Cory, crewing agency from PT. Jasindo Duta Segara for 12 months. Sources of data obtained directly from the research by direct observation and interviews with Head of Engine Room (KKM) and the machinist, documents and literature related to the title of this essay.

The main cause of damage to the Boiler that of combustion at Burner failure factor. Which of these factors could lead to problems in the Boiler namely the failure of combustion in the boiler and the decrease of the production of pressurized hot steam. Efforts are being made in order to work with the maximum Boiler ie checking, maintenance, and repairs on a regular basis in accordance with the procedure primarily on the combustion system. And if there is damage to the components Burner, do the replacement of components in accordance with the original spare parts in order to keep Burner optimal performance.

**Keywords:** *Auxiliary Boilers, Analytical Hierarchy Process, Burner.*