

ANALYSIS OF THE CAUSES OF DAMAGE IN CENTRIFUGAL PUMP IMPELLER USING FMEA (FAILURE MODE EFFECT ANALYSIS) METHOD AT PT. MESKOM AGRO SARIMAS

Name : Aan Fakhrudin
NIM : 2204161082
Supervisor : Razali, ST., MT

ABSTRACT

The pump is a tool that is widely used in the industrial world. Almost every industry uses a pump as a means of supporting the existing production process. Pumps are used to move liquid fluid from a low pressure to a higher pressure or a lower place to a higher place. This study aims to determine the cause of the damage to the pump impeller and to find out what is being done to reduce the level of damage to the pump impeller and to analyze the problem using the failure mode and effects analysis (FMEA) method. From the analysis results obtained through the highest RPN to reduce the level of damage to the impeller of the KEW PUMP KS SR centrifugal pump by performing periodic maintenance on the impeller and conducting an inspection to determine damage to the impeller before it becomes major damage. Based on the failure mode, the impeller has the highest RPN value, the first is RPN (168). then the eye of impeller has the second highest value, namely RPN (8), then the smallest is the casing part, namely RPN (1). Which has the potential to be a failure of the pump component damage process.

Keywords: FMEA, fishbone, impeller, RPN