ABSTRACT

PT XYZ is one of the companies engaged in the automotive industry, especially in the motorcycle industry, that produce spare parts on motorcycles. One component made by PT XYZ is Guide Comp Level K1AA. The problem in the company is one of the machines to produce the Guide Comp Level K1AA component, which is a Press machine has a high frequency of failure. The Press machine itself consists of electrical and mechanical systems that each system consists of sequentially subsystem as many as 6 subsystems and 10 subsystems. By using risk matrix, obtained two critical subsystem namely brake and trigger. Then the analysis of Failure Mode, Effects and Criticality Analysis (FMECA) was carried out with output in the form of Risk Priority Number (RPN) which indicates that the selected critical subsystem is brake to be sought for optimal maintenance time interval. Then, obtained the maintenance policy for the brake critical subsystem are 2 scheduled on condition task and 2 scheduled restoration task. After using the Reliability Centered Maintenance (RCM II) method, a proposed maintenance policy costs IDR 12,512,731, while the company existing maintenance policy costs IDR 16,683,641. Therefore, the company can save the maintenance costs up to IDR 4,170,910.

Keywords : Reliability Centered Maintenance (RCM II), Failure Mode, Effects and Criticality Analysis (FMECA), Maintenance Task, Maintenance Cost.