

ABSTRACT

PT. Sandy Globalindo (PT. SND) is a company engaged in the production of automotive spare parts and accessories especially motorcycles. The problems faced by the company are the frequent damage to CNC Milling A machines with 32 times the amount of damage during 2017 to 2018. The company implements preventive maintenance and corrective maintenance activities but with frequent damage that results in high maintenance costs. Based on the problem, it is necessary to develop a maintenance system with an engine reliability approach. So that the method used is Reliability Centered Maintenance (RCM) with the aim of determining the maintenance time interval and the estimation of efficient maintenance costs. By using Failure Mode Effect and Critical Analysis (FMECA) analysis with an output in the form of an RPN value that shows the components of rail bearings, spindle bearings and hoses as critical components of the system. Then the maintenance policy is determined with the results of 2 scheduled on-condition tasks, 2 scheduled restoration and 3 scheduled discard tasks with maintenance time intervals according to the task category. By using the RCM method, PT. SND can save maintenance costs of Rp175.602.300.

Keywords: Maintenance, Failure Mode Effect and Critical Analysis, Reliability Centered Maintenance, Maintenance task, Maintenance cost