# *ABSTRACT*

PT. Duta Hita Jaya *is one of the companies in the iron and steel fabrication industry. Being one of the main support in infrastructure development in Indonesia, which is currently growing, is marked by the construction of roads, airports, ports, railroads and several other facilities. The tower is one of product that is often ordered by customers, whether it's a telecommunications tower or an electric tower. To avoid failure of the production that has an impact on production target with the result that make disadvantage to company, so this research is using the Reliability Centered Maintenance (RCM) method to get the proper maintenance time interval and the Reliability Centered Spares (RCS) method to calculate the level of spare parts inventory that must be provided so there is no stock out. Maintenance task election based on Failure Mode and Effect Analysis (FMEA) and RCM Worksheet. The result was ten Scheduled On-Condition activities and then continued to do quantitative calculations to get a maintenance time interval with a proposed maintenance cost of Rp. 88.390.300.00. The results of RCS calculation with the Poisson process method are repairable components such as hydraulic hose requiring 4 pieces, pneumatic hose on marking 4 pieces and pneumatic hose on punching 9 pieces. Non-repairable components such as 10 pieces of the solenoid valve, 14 pieces of tubing, 22 pieces of L8 bolts, 30 pieces of limit switches, and 55 pieces of oring koper.*



*Keywords: RCM Worksheet, Failure Mode and Effect Analysis, Poisson Process, Reliability Centered Maintenance, Reliability Centered Spares.*