ABSTRACT

PT Pan Panel is a company that engaged in manufacturing furniture panel. One of the things that support the smoothness of the production activities is a readiness of the production machine in performing the duties and an adequate supply of the component. The companies need to reschedule the component replacement activites in order to reduce the rate of component failure and determine the optimal supply of critical components. The study was conducted to get a critical component replacement intervals and to get the number of the ordering of optimal critical component, so it would get the total of minimum inventory cost. The method that the study used was an Age Replacement model by looking the smallest value of the Downtime. The result obtained include the time interval of replacement of the preventing the critical components based on the minimizing downtime criteria was 290 hours. So the needs of inverter component for one year were 17 units with the number of each ordering were 5 units. The total of minimum inventory cost for one year with the amount of each ordering as much as 5 units were Rp 59.664.000,-.

Keywords : ***Determination of Time Interval Replacement, Critical Component, Inventory, Total of Inventory Cost***