

ABSTRACT

PO Rajawali project is one of the individual service companies engaged in the sale of construction equipment. Among the heavy equipment owned, SK200 Type Excavator is the most demanded tool to rent because the tool is the latest type. This makes the operational load or SK200 excavator operational hours larger than the other excavators that allow the level of usability will be higher than other types of excavators. To achieve customer satisfaction on the services offered, the company must support the excavator with a good engine performance. Spare parts have an important role in the machine. Currently the PO Rajawali project does not yet have good goods management, is marked by the company has not been able to identify critical components, and the company also has no inventory policy for all components that allow optimal spare parts management and inventory policies for maintenance and operational activities not to fail. Measurement of risk matrix to find the subsystem that will be made object to determine the critical component and the number of needs by using Reliability Centered Spares (RCS) method and determine the optimal policy using Inventory method. Based on the calculation using RCS method, there are three important components, namely bucket gear, seal arm, and v-belt components with 27 units for dental bucket components, 19 units for seal arm components and 17 units for components v-belt. While based on Inventory calculation results obtained the total cost of optimal preparation for all components is Rp 16.752.771.

Keywords: Inventory, Risk Matrix, Reliability Centered Spares