ABSTRACT

PT. Agronesia INKABA Division is one of the company's ROE (Regional-Owned Enterprises) of West Java Province. The company is engaged in manufacturing, with the resulting poduct form various kinds of goods from rubber processing techniques. Products are then used by various industries or other private institutions such as the manufacturing industry (construction), transportation (marine vessels), mining, automotive (car and motorcycle), and the military. To be able to support the productivity of the company to meet the demand of customer support performance engines in the company's ongoing production activities need to be improved.

Firm productivity can be hampered if there is damage to production machinery, maintenance division of the companies must be able to perform engine maintenance activities appropriate for each engine including good management of spare parts. Often occurs due to damage of the engine components. It required a spare parts management activities are planned to support operations and maintenance companies. Kneader Machine KD-75-150D is on the compounding machine that has the highest frequency of damage. Therefore, this study focused on the management of spare parts on the Kneader machine KD-75-150D.

Analysis of criticality calculations, obtained 7 critical components on Kneader machine KD-75-150D which component are packing seal, bearing, asbestos packing, solenoid coil, belts, pulleys, and gears. Then result of the calculation needs spare parts for 1 year using a model approach to the Poisson process with the confidence level of 95%. Output the number of components needs seal packing (33 units), bearing (4 units), asbestos packing (52 units), solenoid coil (4 units), belt (4 units), pulleys (3 units), and gear (3 units). Determination is then performed to determine each component stocking policy. Then obtained, 2 component made reservations before the demand, there are bearing and belt. Then there are 5 components that do supply components in the storage component, there are packing seal, asbestos packing, solenoid coil, pulley and gear. Each of the component is further determined the optimal order quantity, reorder point and safety stock minimum number of components that must be provided. Then calculate inventory cost that must be incurred by the company for each component, so we get a total cost for Kneader machine KD-75-150D for 1 year is Rp. 36,150,872.22.

Keywords: Maintenance Management, Spare Part Management, Reliability Centered Spares (RCS), Inventory Analysis, Poisson Process