ABSTRACT

The textile industry is one of the companies that have second position in Indonesia, *the position of the two after the food company. The demand for clothing is the reason of the existence of the textile industry.* PT ULS *is one of the major textile companies in* Bandung. *The Twisting Department of* PT ULS *itself is divided into four Departments, namely, Twisting, Spinning, Knitting, and Weaving. The Department is the most important because the Twisting Department is the first process of production flow in* PT ULS. *In a production system of Twisting Department, Twisting is inseparable from the role of a machine. One of his machines namely* Murata 310A *which play a role in the system of Two for One in a routing thread. In addition to the positive role of the machine,* Murata 310A *also gives a negative impact if it gets the less than optimal maintenance treatment. To get the optimal maintenance activities, required methods of Reliability Centered Maintenance* II *to get the ideal treatment intervals and also the cost of her treatment. Then in the presence of damage to the machine, to do analysis of risk experienced by the engine. Risk analysis can be done using methods of Risk Based Maintenance for a total risk. The object to be taken is limited to critical components then breakdown it into the relevant subsystem. For the selection of the critical components, carried out using the method of* ABC *or paretto diagram based on the amount of downtime experienced by each component. Components on the* Murata 310A *there are* Gear End Box, Spindle, Traverse, GE Box, Drum Shaft, Pulley Tension, Feedrool, *and* Motor End Box. *In this research will be obtained the optimal treatment time interval and number of risk experienced by the company against* Murata 310A *in* PT ULS. *The result of risk calculation that will be accepted by the company according to RBM method with maintenance pattern and the existing damage is* Rp 377.196.602, -. *While the comparison of the cost of existing maintenance and proposals based on the method of* RCM II *is* Rp 85.388.778, - f*or the cost of existing maintenance and* Rp 89.550.973, - *for maintenance costs proposal, so the difference is* Rp 4.162.195, -.

Keywords : *Maintenance, Reliability Centered Maintenance* II, *Risk Based Maintenance,* ABC *Method*, Murata 310A *Engine*