

ABSTRACT

The product of a production process can not be separated from the role of a production machine. As a printing company that has a quite a lot of customers, PT Granesia should provide satisfactory printing results to customers. Matter which is based on product specifications to satisfy the customers wants in terms of color printing, paper display (at number of dirt on the paper) and print completion time in accordance with the schedule agreed earlier. From interviews, print delays often occur as a result of damage to the printing machine. If this is left unchecked then the trust of the issuer will decline. So far, the company had engaged in maintenance of machines used in the form of maintenance schedule daily, weekly, monthly and six monthly. This activity continues to be conventional, is each team do engine maintenance based on existing guidelines and agreed to be performed without any judicial review against the activity. While the maintenance takes a different machine to do maintenance from time to time along with their use.

This study uses Risk-Based Maintenance (RBM), the method of maintenance aimed at reducing the overall amount of risk that may occur as a result of damage to an engine. The value of reduced risk is the risk value the exceeds the risk acceptance criteria. Magnitude interval optimal care sought by reference on the value of risk that is under the value of risk acceptance criteria and have low maintenance costs.

With the value of risk acceptance criteria of 5% of the total capacity of the machine in one day, found the risk for each machine is above the risk acceptance criteria that is equal to 6,29% for folder machine, 8,60% for printing unit machine, and 13,53% for dampening system machine. So the printing machine is necessary to do maintenance planning.

After processing the data, then obtained the optimal maintenance time interval with a low risk, is 220 hours for folder machine, 130 hours for printing unit machine, and 100 hours for dampening system machine. The time interval is smaller than the expected value of acceptance criteria.

Keywords: risk-based maintenance, engine maintenance, risk acceptance criteria