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SOMKIAT WITTHAYAPANYANONT : MAINTENANCE PLANNING FOR PLASTIC INJECTION MACHINES IN A TOY FACTORY. THESIS ADVISOR : DR.WORAPHAT PHUCHAROEN, 316 PP. ISBN 974-582-857-2

In any plastic industry, plastic injection machines are very important. This research has studied them to determine a maintenance plan for a toy factory.

To keep a plastic injection machine in a good^{*} condition and ready to operate at all time, there must be an effective maintenance plan. The priority, mean time between failure, type and failure cause of each part in the machine were taken into account in the plan. Productive maintenance has been utilized for 5 years in advance. The plan includes 5 years master maintenance plan, annually maintenance plan, monthly maintenance plan, weekly maintenance plan, lubrication plan, inspection plan and purchasing plan. To confer the maintenance plan efficient, this research has availed the computer to aid in the planning and has established a maintenance standard and a maintenance control.

The researcher implemented this plan for the first 6 months of the plan with 5 models of the plastic injection machine, for a total of 14 machines. Results from the implementation were obtained as follows the average availability index of machines is increased by 3.02%, the average ratio of maintenance cost to production cost is reduced by 2.69%, and the average ratio of maintenance cost to loading time is reduced by 6.30 baht.