

ABSTRACT

The business competition in the world that increasingly stringent provide challenges for the company to run its business in a sustainable manner and minimize the disruption that occurred during the running production processes. One factor is the timeliness of the production process.

DC Drive system is a major driver of tinplate production process in PT Latinusa, therefore system reliability is needed to minimize the production breakdown due to drive system performance. DC drive system is the main cause of breakdown tinplate production process. In addition, the existing DC drive system spare part is now obsolete.

FMEA is a reliability evaluation technique of a system to determine the effect of the failure of the system. The method of analysis in design FMEA is used to calculate the value of RPN (risk priority number). The higher the RPN value, the higher the need to take any remedial action. But if low RPN value indicates high engine reliability and requires little maintenance.

Based on the calculation RPN of the drive system, the highest RPN values are DC Motor, the Command module, Controller module I and mechanical systems. RPN value for all four of these factors respectively in 1356, 1024, 1020 and 640. Total value of RPN for the fourth item reaches 78.54% of the total value of all items RPN control drive that reached 5144. Therefore, the steps made towards completion of these factors.

The process of replacing the DC drive system into an AC drive system to be done to ensure continuity of operations and improving the quality of tinplate. Replacement will require a huge investment is therefore necessary to in-depth review of various aspects, especially related to economical aspects, and market risk. For further research needs to be done measuring drive system breakdown analysis using FMEA method after the replacement of AC motors.