

ABSTRACT

PT.XYZ is a company that produces polyester yarn with average demand per day 14 tons. Based on Draw twistered yarn (DTY) production ZW 2747 on machine 307 in 2011, there is a discrepancy in the output weight yarn packing that causes the production target is always under the company's target of achieving 78% of total production. The weight discrepancy could be caused by waste that exist in production line. To eliminate waste that occur on the production line and to find the root causes of such waste with lean manufacturing approach.

The step to map the entire flow of information and material that occurs in the process of yarn production in DTY ZW 2747 on machine 307 using Big Picture Mapping. Further, classification is made through the activity by using Process Activity Mapping. Based on the Process Activity Mapping (PAM), obtained the percentage of the value added by 73,03%, 13,5% value added activity and non value added activity by 13,47%. The next step is to find the cause of the waste is based on seven criteria of waste by using checklist. Based on the checklist derived types of waste that occurs is the root causes of waste defect searched using pareto charts, fishbone diagram, and 5why.

The next stage is designing the proposed improvements based on the percentage obtained in 5why. Improvements for operator with the percentage of 56% is by creating autonomous maintenance program and motivation. The improvement repair method is to use Genchi genbutsu method and standard-setting work. Improvement to keep the machine performance by replacing engine spare parts regularly. Improvement to make a material andon board. Proposing environmental improvements by making a display warnings and counseling of using earplug for operator. The last stage is proposing revision the 5S that have been implemented by PT.XYZ

Keyword : Lean Manufacturing, Picture Activity Mapping, checklist, 5Why, autonomous maintenance ,andon