

ABSTRACT

PT. XYZ is a manufacturing industrial company that focuses on the production of motor vehicle spare parts, one of which is the K45 Comp Chain Adjuster which is used for after the chain on the wheels. Based on the company's historical data for the period December 2018-November 2019 PT. XYZ produces 11512 units of Adjuster Comp Chain K45 spare parts per month on average. The process that is the focus of this research is the blanking process or the perforation process. There are several defects in the blanking process, namely scret, dented, stuck in the middle hole, and stuck in the jig. This research focuses on the type of stuck defect in the middle hole which is caused by the position of the material not fitting so that the resulting diameter is not suitable. Therefore, it is given a recommendation for improvement in the form of a tool to hold the plate and visual display.

To determine the proposed improvement in this study using the DMAI approach. The define stage consists of making a SIPOC diagram, identifying CTQ, defining the amount of production data and defect type data for the period December 2018-November 2019, and defining the types of defects. In the measure stage, it contains calculation of process stability and capability. The Analyze stage contains process analysis using Pareto diagram, identifying the root of the problem using Fishbone, and process improvement priority analysis using FMEA. In the improve stage, it is in the form of a proposed improvement to improve the process using 5W + 1H and the proposed design of tools.

The result of problem identification using the DMAI method is a proposed tool in the form of a magnetic clamp as a plate holder so that during the process the object does not shift so that the resulting size is the same and a visual display which aims to inform the operator of the provisions and procedures for the blanking process.

Keywords: *Six Sigma, DMAI, Adjuster Comp Chain K45, Blanking*