

COST INTEGRATION VALUE STREAM APPROACH TO ELIMINATE WASTE IN CRANKCASE PRODUCTION LINE

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Abstract

Crankcase Production (CP, is a nickname) is a company engaged in manufacturing, one of which produces one component of the engine motor unit, namely the crankcase component. The crankcase product is the product with the highest demand, which is around 5,000 sets per month. In the production process, there are still various indications of waste that cause a decrease in the efficiency and effectiveness of the production process. One of the biggest problems is defects, with a percentage of defects above 5%. Moreover, the actual monthly production results from the crankcase machining process have not been able to reach the target set by the company. Therefore, it is necessary to optimize the machining process of the crankcase to increase the effectiveness and efficiency of production. This study aims to eliminate waste in the production line of crankcase machining by implementing the lean manufacturing concept. The lean manufacturing method used is the Waste Assessment Model (WAM) to distinguish waste in the manufacturing process and Value Stream Analysis Tools (VALSAT) to select the mapping tool used in the waste analysis. The cost integration value stream introduces cost lines that can help facilitate decision-making. Results Based on the analysis obtained three recommendations for improvement: modification of the face and boring designs, application of the sampling method to the leak test process, and incorporation of the washing process.

Keywords:

Cost Integration value stream, Crankcase Production, Lean manufacturing, Value Stream Analysis Tools (VALSAT), waste assessment model (VAM),

Biography

Imam Rendi Pratama, ST. currently as a technology management master program student at ITS. He holds a bachelor's degree in industrial engineering from Brawijaya University. Currently he works in a manufacturing company.

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