Implementation of TPS and Elimination of Seven Types of Muda on Final Washing (MTU) Unit at Bharat Forge, Pune

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Abstract

Toyota Production System (TPS) gives the whole new perspectives on identifying waste and therefore the unexploited opportunities associated with reducing waste. This research work is carried out at Final washing (MTU) unit in Bharat Forge, Pune. The organization everyday was facing the problem of pending crankshafts for washing at final washing (MTU) unit. The major objectives of the research work was to reduce cycle time of the unit, improve working conditions of the unit and minimize the efforts of the operator and eliminate wastage and minimize the inventory cost. The scope of study includes increase capacity of unit, reduce manpower and electricity. Descriptive research process is carried out with fact finding investigation with adequate interpretation. The analysis is carried out by noting down all the processes, calculating cycle time of each process, identifying bottleneck processes and finding out the areas that involve wastages. The researchers suggested to implement TPS to reduce total cycle time, to minimize the MUDA & to improve capacity with zero investment. The researchers also suggested to increase speed of machine for faster job rotation. It was also suggested that there should be checklist for the problem identification of machine which will help to maintain daily production. This research work has helped the reduction of 2.30 minutes per crankshaft and increase capacity of 740 crankshafts per year. This has reduced cost of Rs.10000 per crankshaft and yearly Rs.74,00,000 contributions for the organization in terms of money.

Key Words: Toyota Production Systems, MUDA, capacity, cost