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Application of Lean Manufacturing in Brake Shoe Manufacturing Plant: A Case Study

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Abstract : The main objective is to apply lean tools to identify and eliminate waste in and among the work stations so as to improve the process speed and quality. From the top seven wastes in the lean concept, we consider the movement of materials, defects, and inventory for the improvement since these cause the major impact on the performance measures. The layout was improved to reduce the movement of materials. It also quantifies the reduction in movement among the work stations. Value stream mapping has been used for identification of waste. Cause and effect diagram and 5W analysis are used to identify the reasons for defects and to provide the counter measures. Some cycle time reduction techniques also proposed to improve the productivity. Lean Audit check sheet was also used to identify the current position of the industry and to identify the gap to make the industry Lean.

Keywords : cause and effect diagram, cycle time reduction, defects, lean, waste reduction
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