ABSTRACT

With the new technology innovation of 21st century and the global industry environment variation, the completion tendency to machine tool has gradually turned to be diversification, small lot, and short period requirement. Taiwan's economy situation has long been in the mild and low growth rate. To compete with global competition and to meet the strong manufacturing development of China, some production ways, including cost down, high efficiency, high quality and short delivery, must be used to meet this tendency, and to improve industry competition. Based on the motive above, the purpose of this study is to combine lean production related literatures and management skills. By inducting concern chain processing and boot assembly line, and using information stream bulletin and pull-production process to production management, enterprises can do performance estimate and evaluate the improvement effect. It can also solve the inventory and waiting waste causing from processing, unusual demand-supply, and unusual quality. A case study for the compound CNC lathe machine manufacturing is used on this paper to evaluate the efficiency of work time improving, and a most suitable manufacturing way for the small-middle enterprise is also gotten. It will have obvious improvements on manufacturing process, assembly efficiency, stock control, productivity, and supply balance, and also deserve to introduce to the industries.

Keywords: machine tool, lean production, bulletin, Toyota Production System (TPS), just in time (JIT).