

Time Differences in Manual Assembly Performance: An Experimental Study*

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Abstract

The following publication presents an experimental study of manual assembly processes for objects consisting of a small (20-30) number of parts. Based on the study, factors affecting the manual assembly time of individual assemblers were identified. Differences in assembly times for activities requiring high precision and the use of force were presented, how assembly times and its repeatability change depending on the sex of the assembler and the pace of learning to perform the assembly procedure in accordance with the instructions for different assemblers was determined. The presented results can be used by companies involved in manual assembly processes to allocate assembly tasks more efficiently and to achieve savings due to shorter lead times for a single assembly cycle.

Keywords: MTM analysis, manual assembly, gender differences