

ABSTRACT

PT. Pindad (Persero) is an Indonesian state-owned enterprise specializing in military and commercial products such as “Pindad Excava 200”. Based on historical data from March 2017 to June 2018, the production of this product is reportedly can't achieve the number of predetermined production targets. Based on the problem, an observation was conducted on its floor production, and then mapping the production flow using the Lean Manufacturing Tools is Value Stream Mapping. The results of VSM mapping, it is known there's a lead time of 3991.7 minutes. To find out more details of activities in the production process, a PAM (Process Activity Mapping) mapping is carried out. Based on the PAM mapping, it is known there's value added activities of 3589.91 minutes, non value added activities of 37.56 minutes and necessary non value added activities of 619.85 minutes. Based on non value added and necessary non value added activities, there was found waste motion in the assembly zone with a percentage of 22.7%. Identify the root causes of waste motion is using the fishbone diagram, and 5 why's. To minimize waste motion, 5S is applied. After applying the 5S, it is known there's a reduction time of 25.20 minutes which can be seen in the VSM Future State.

Keywords: Lean Manufacturing, Value Stream Mapping, Waste Motion, Fishbone Diagram, 5 Why's, 5S.