

## **ABSTRACT**

*PT Dirgantara Indonesia is an airplane's parts subcontractor that employs the make-to-order method. One of the parts that is produced by this company is rib pylon outboard. Throughout the production process, rib pylon outboard parts often fail in meeting the production target and deadlines. Other than that, 98 percent of this line production process is a non-value added.*

*Lean manufacturing is a method that optimizes waste reduction. It is achieved by creating a work structure that focuses on value, reduces over-production and meets consumer demands. The first step that the company has to employ is by utilizing a clear concept in the production process of the rib pylon outboard part, by using Value Stream Mapping (current state) and detail mapping Process Activity Mapping (PAM) methods. This way, the waste throughout the value flow is identifiable. The next step would be identifying waste based on the 7 types of waste.*

*According to the research, it is identified that the sources of waste throughout the rib pylon outboard line production are overproduction, waiting, transportation, unnecessary inventory and defect. The methods suggested in reducing overproduction are by: mobilizing continued flow, minimizing accumulated orders of work in process between workstation with the kanban calculation, adding transportation devices such as trolley, adding shifts to optimize the workstation capacity and employing 5s analysis to increase the work efficiency from the operator by decreasing the lead time by 952,697 or about 80%.*

***Key words: Lean Manufacturing, 7 Waste, Value Stream Mapping, Process Activity Mapping.***