

ABSTRACT

PT Dirgantara Indonesia (Indonesian Aerospace, IAe) is a company that exist in airplane industries. Now a days, unit Aerostructure is producing Paragon's program in its production process. In order to fulfill Paragon's program, unit Aerostructure is pursued by customer not only give attention in quality and price, but also give attention in lead time problem. In order to achieve the purpose that can reach punctual lead time, Indonesian Aerospace have to improve its production strategy. Kanban system is one of the system that is used in production process. This system uses a tool that is card. This card is used to control production process. With this card, the company can produce product that is needed in accordanca with requirement and can reach punctual lead time, so the product can be send to the customer punctually.

Generally, there are several things to perform within that trouble-shooting in five phases. First phase is identifying phase that includes determining problems and goals which want to be reached. Second phase is researching phase, where literature and object research study are held in this phase. Third phase is data collecting and processing that includes data collecting and processing to get production capacity planning and afterwards is used in production flow process with Kanban system. The next phase is analyzing phase, this phase is used for base to make Kanban system improvement. After finishing analysis, the next phase is conclusion and suggestion phase.

Capacity machine planning is based on machine utilization. Machine utilization indicates percentage actual available time machine to operate compare with required time machine to operate. Actual available time machine is sum of machine hours based on shift that used in proses production. Required time machine to operate is sum of total hours per pieces part number that is processed in each machine. Based on 5 machines that have different specification, there are 1 machine that is Millac 6H which can not fulfill the required capacity. The other 4 machines that are DGMP (C,D) Cincinati, Copy Mill. Liechty TMR 72.77, Drop & Rein, and Yoneda-1225 TS which can fulfill the required capacity in productisn process each part number. Output from capacity planning machine is used in process production flow with Kanban system.

Conclusion that is obtained from this research is capacity planning to produce D-Nose part to appropriate costumer demand is uses 1 shift actual available hours per day for each part number. Kanban system improvement is made which is used double card Kanban system with 4 set withdrawal Kanban card and 15 production Kanban card (1 card is for safety Kanban) for each part.

Keywords: capacity planning, machine utilization, Kanban system, double card Kanban, withdrawal Kanban, Production Kanban