ABSTRACT

PT Dirgantara Indonesia is a company that has the competence to manufacture aircraft components. PT DI has been involved in contract with consumer ovearseas as supplier of aircraft components in large scale, one of consumer is Airbus Industrie. Contract of agreement between PT DI and Airbus called Program Paragon. With that program, PT DI should produce good quality of product and on time delivery. Thus, readiness necessary facilities to ensure production activities run smoothly. One of the crucial machine involved the Paragon Program is a machine Droop & Rein #A. The machine has high amount of damage frequency, so that it will be interfere with the smooth production process. Beside the risk, maintenance costs would result in losses for company. Thus the necessary to improve maintenance activities to minimize losses caused by damage to the machine.

Based on the failure of the mechanical subsystem is obtained the object of the research. Mechanical subsystem consisting of ATC, Spindle, Axis X, Axis Y, Axis Z, Axis Z, Axis B, Axis C. The whole subsystem is examined with Reliability Centered Maintenance method to generat preventive tasks and Risk Based Maintenance method to optimize maintenance intervals. Both methods were combined to get a maintenance policy based on the characteristic of the damage, high reliability, risks, and the consequences as low as possible.

With the method of Reliability Centered Maintenance approach to obtain preventive tasks such as 13 schedule on condition, 10 schedule restoration, 6 schedule discard, and 7 finding failure. Optimization of treatment time interval was conducted bye Risk Based Maintenance 600 hours for ATC, Spindle 200 hours, Axis X 600 hours, Axis Y 1200 hours, Axis Z 600 hours, Axis B 600 hours and Axis C 1200 hours. Obtained Reliability values ranging from 0,55 to 0,89.

Keyword : Kata Kunci : Reliability Centered Maintenance, Risk Based Maintenance, reliability