ABSTRACTION

WWT II is one of section in PT IKPP SERANG Mill which is waste management rest of production process from 5 PM owned by it. Maintenance policy which specified by management of PT IKPP SERANG Mill are a preventive and corrective maintenance policy . Until now the maintenance policy which is done by WWT II, is only the corrective maintenance method. Such a condition, resulting a non-optimal reliability level. The wanted reliability level by the management of PT IKPP Serang Mill (Section WWT II) is equal to 90%, while the reliability level of the existing machine critical component is ranges between 36% to 50%. Both Management and operator maintenance of WWT II requiring a preference to determine prevention maintenance interval as an implementation of the prevention maintenance method. Right now, the prevention maintenance interval which is needed to be a preference, is the prevention interval of the critical engine component.

The determination of prevention interval maintenance acts as an action of preventive maintenance method. The determination step is started by collecting time data of engine component's damage. Data are summarized, and then the damage of critical component at the chosen location can be determined. Data are processed by plotting damage interval time data to know the parameter of which damage interval time distribution will be tested. Test of Kolmogorov Smirnov is performed to determine the most representative distribution. Then, the average time between damage of critical component, function of machine failure pattern, reliability function, and solidity of engine critical component probability function are determinable. Hereinafter is performed a preventive maintenance time interval calculation and will be determined the optimal prevention maintenance time interval by using cost of maintenance as it assumption.

Damage interval time of critical component Gland Packing, Shaft Sleeve, and Hydrolic Tensioning are exponential distributed and having a constant failure pattern. While the damage interval time of Copling Disk is weibull distributed and its failure pattern rapidly increase along with the increasing of component operating time.

Based on the result of the data processing, concluded that the optimal maintenance time interval of engine critical component is shown on the table below:

Name Of Component	**MTTF (day)**	***Tp (day)***	***C(Tp)***	**Fastest TTF (day)**
Gland Packing	56,2	5,919	$\frac{0,9 + 0,1}{5,3271}$	14
Copling Disk	78,36	39,18	$\frac{0,9 + 0,1}{35,262}$	40
Shaft Sleeve	128,75	42,917	$\frac{0,9 + 0,1}{38,6253}$	53
Hydrolic Tensioning	130,5	13,755	$\frac{0,9 + 0,1}{12,3795}$	23

Key words : preventive maintenance time interval, reliability, Kolmogorov-Smirnov.