

ABSTRACT

PT Pikiran Rakyat Bandung have 2 types of printing machines with a different capacity, namely type GOSS Community with maximum print capacity of up to 15,000 copies and GOSS UNIVERSAL - 50 (GU-50) with a print speed of up to 50,000 copies / hour. In everyday usage, the machine Goss UNIVERSAL - 50 (GU-50) is the main printing machine, while the Goss Community printing press to function as a backup.

PT Pikiran Rakyat Bandung has applied for machine maintenance activities existing system maintenance performed only in the form currently on Condition maintenance activities without making a scheduled replacement of components, because it is found many obstacles on the ground like a print process time is often longer than it should. Preventive maintenance activities that are applied PT Pikiran Rakyat Bandung estimates based on the type of damage to the engine GOSS and recommendations based on experience.

In general, this printing machine consists of a large system that is 6 printing units, folders, counters, Strapping, reelstand and dampening system. Dampening system or washer. This section functions as a spray flow of ink on the plate. Dampening system has major problems, namely the distance that often shifted roll, spray ink, so that does not fit into the printing process is obstructed.

Care Policy for GU-50 engine or print unit dampening system with sub Reliability Centered Maintenance method (RCM) is expected to result in the determination of appropriate treatment policies, by knowing equipment / parts of the system and the critical time for treatment improvements that can be done before the system susceptible to interference and can minimize maintenance costs.

In the determination of critical systems using the selection method based on the frequency of damage based on the Pareto diagram and observations made by the method of FHA, which analyzed the system based on the occurrence of the damage cause. So the observations and obtained supporting data obtained from the 5 critical components of 6 components that are part of the spray dampening system nozzle, Rider Rubber Roller, Spray Dampener Assembly, Drip Tray and Water Form Roller. Based on the data TTF (Time To Failure) which has been calculated by Anderson-Darling test, the distribution of these five critical components are Weibull.

Based on the RCM method, the distribution of Time to Failure, and damage characteristics of each critical component, so that appropriate treatment policy to apply to the critical components of GOSS U-50 sub-dampening system has two components (Spray nozzle and Drip Tray) task On Condition and three other components (Rider Rubber Roller, Spray Dampener Assembly and Water Form Roller) who moved to Schedule Discard task.

The calculation of the total cost of care for critical components using the Model Minimasi Costs. This treatment is divided into inspection and maintenance replacement treatment. For comparison with the inspections conducted Existing. However, for the determination of the replacement is done on time because there are no Existing conditions determining the exact time so that the proposed replacement is done. The final result of the calculation and comparison can be seen in the table below

The results of existing proposals for the treatment

No	Komponen	Kebijakan perawatan		Frekuensi		Total biaya/tahun	
		Before RCM	After RCM	Before RCM	After RCM	Before RCM	After RCM
1	Spray nozzle	on condition	on condition	52	63	Rp51,801,039.86	Rp50,456,369
2	Drip Tray	on condition	on condition	52	21	Rp37,297,367.86	Rp17,479,725.06
TOTAL				104	84	Rp89,098,407.72	Rp67,936,094

Results proposals for replacement

No	Komponen	Kebijakan perawatan		Frekuensi		Total biaya/tahun	
		Before RCM	After RCM	Before RCM	After RCM	Before RCM	After RCM
1	Rubber Rider Roller	on condition	Schedule discard	19	16	Rp1,143,000,518	Rp687,525,483
2	Spray Dampener Assembly	on condition	Schedule discard	9	15	Rp498,293,496	Rp554,209,735
3	Water Form roller	on condition	Schedule discard	19	18	Rp1,622,399,170	Rp1,178,650,194
TOTAL				47	49	Rp3,263,693,184	Rp2,420,385,412

Of the proposals can be seen when compared with the values Existing have a better comparison of the cost and the number of frequencies produced the remarkable results of this proposal to be considered.

Keyword : maintenance, RCM, Printing units GOSS U-50