ABSTRACT

PT Primajasa is a company move in transportation services. PT Primajasa provide transportation services for destination Jakarta - Bandung. For operational PT Primajasa using bus type HINO. PT Primajasa should be able to reduce the risk of engine damage during operating hours. Dedicated bus HINO engine type RKT is often impaired damage. The damage often occurred due to PT Primajasa not consider the characteristics of component damage and age. The high amount of damage it will cause the cost of maintenance and the risk of damage to the detriment of the company Therefore it is necessary to repair the optimal preventive maintenance activities.

Based on Pareto diagram, from five engine system selected four critical systems, there are System Lubricants, Fuel System, Starter System, and Turbo Systems. For Cooling System as research object because the considerable amount of damage percentage. Subsequently after knowing the critical system then conducted from objek study to determine the time interval optimization of maintenance using the Risk-Based Maintenance (RBM). This research is expected to create an effective and efficient maintenance. Effective maintenance activities can determinined by high characterized reliability value system, while efficient it can be seen from the cost of maintenance and the risk of damage caused by maintenance activities.

Based on the results of data processing, optimal interval maintenance based RBM thre are 200 hours for Fuel System, 400 hours for Starter System, Turbo Systems, Lubrication Systems, and Cooling Systems. Activities and maintennace intervals from this suggestion gives a total cost of maintenance and risk cost of Rp12.292.398 smaller than total cost and risk cost of the existing maintenance for Rp23.111.561.

Keywords : reliability, RBM, preventive maintenance, time interval optimation