**ABSTRACT**

Bengkel Bubut Chevi Sintong Palembang is a company engaged in body repair, especially for four-wheeled vehicle. In producing its products, Bengkel Bubut Chevi Sintong only accept orders only (Job Shop) and involves a lot of machines in the proces. In fulfilling the customer orders, the persistence of the machines are idle while another job mengerjaan so often there is a delay completion of the job or the processing time exceeds the maximum limit (due date). This makes about 75 % (according to the planner) product repair services has been delayed. Delay the fulfillment of this demand resulted in charges to service and greater consumer confidence in the company will decrease because it can not fulfill the order in accordance with the established due date. Therefore, the scheduling needs to be done on each machine to minimize the number and the time delay. The method has the function to minimize the amount of time delay and non- delay is to use the method. Non- delay scheduling a real schedule that does not allow any idle machine in a state that would result in the amount and the minimum delay time. Results of non-delay scheduling method showed total job completion time of 769 506 minutes with the order process job 3, job 1, job 2, job 4, job 6 and job 5 with a total of only 1 job is delayed compared to the scheduling of the company is amounted to 918 184 with a total of 5 minutes late job, are the job 2, job 3, job 4, job 5 and job 6. Time experience delays in the completion of non- delay is relatively small compared to the time delay of the company. Scheduling with non-delay method allows several operations carried out at the same time but with different engines, so that when applied to increase the productivity of the production company. In addition, a decrease in the cost of repair services for Rp.134,645,00 with non-delay scheduling.

**Keywords:** Scheduling Engine, Non Delay, Delay.