ABSTRACT

Material Handling Equipment is a device which is very important in the world of industry especially for improve work productivity and efficiency time, however election of types of material handling equipment which will be used must be adjusted with level of the needs which includes capacity who needed, distance, and characteristics of the material which will be moved. The topic which discussed in this final project is the belt conveyor A2. The purpose of this final project is to know the bearing age of the idler and to know the performance which exist on the belt conveyor A2 PLTU PT. PJB Paiton already in accordance with specification of the component who selected, so that can known whether election such component already precise or not yet. In this Final Project the components which discussed is the motor conveyor on belt conveyor A2.

The initial step for this research is through early identification stage including environmental observation and study of literature. Then do the data collection and processing will continue with the analysis and conclusions.

From the calculation it is concluded that the selection of conveyor motors with TEFC type motor brands FALK was appropriate, because according to the calculation, the motor power is 191.6 kW while on the motor has a maximum power of 250 kW.

Keyword: belt conveyor, motor power, motor conveyor