

ABSTRACT

PT. Dharma Precision Parts is a member of the Dharma Group that founded in 1997 which produces automotive components, one of which is the arm stay. The production process of making arm stay is divided into four work stations and a QC. In doing production, the company employs two operator for each work station and QC. However, with the increasing cost of labor and production capacity that already maximum it will have an impact on the decrease in corporate profits. One way of solving the problem is to use material handling equipment such as conveyors that can replace the task of the operator. The stages of machine design were used in this research is analysis forces, material selection, design of elements, modification, detailed drawing and production to get detail design of conveyor. Design achieved from this research is detailed design of conveyor system that contains material, size and etc. The results obtained from this research is a belt with a rubber material that has a length of 2.5 m and 5 m and foot frame with hollow steel material which has a length of 0.6 m and 1.6 m. In addition, the company can reduce production costs Rp10.000.000 each month.

Keywords: detail design, conveyors, machine design