

ABSTRACT

This study aims to design a wooden pellet transport trolley using the Ergonomic Function Deployment (EFD) approach to improve work productivity. This research was conducted at PT. Perkebunan Nusantara VIII, Ciater. There is a transport activity of wood pellets where to carry 30 tons of wood pellets is done by 5 workers each of which must carry a maximum of 60 kg of wood pellets. This manual transport activity each worker do maximum 100 times back and forth with a distance of 4 meters. In the process of designing the trolley, knowing the employee complaints using NORDIC Body Map questionnaire and then analyzed the value of the existing work posture. In addition, the making of a needs statement for the Ergonomic Function Deployment (EFD) approach is based on the concept of ergonomics EASNE (Effective, Safe, Healthy, Comfortable and Efficient) and another product design stage to emerge an ergonomic trolley design. After the emergence of ergonomic trolley design then carried out analysis of push pull and productivity. So it is found that the trolleys can load a maximum of 360 kg of wood pellets and can minimize the frequency of transport to 83 times with a time of 2 hours 49 minutes. By comparing the existing productivity and proposals, it can be said that this wooden pellet transport trolley can increase work productivity in the drying work station.

Key words --- *Ergonomic Function Deployment, produktivity, NORDIC Body Map, EASNE, push pull.*