ABSTRACT

*The purpose of this thesis research is to identify complaints experienced by the operators, analyze effort needed by operator, analyze risks occur, proposed improvement plan for the department of painting at PT XYZ, by designing tools and working elements adapted from the anthropometric data of workers from West Java. To obtain the research objectives of this thesis, the author uses a questionnaire Nordic Body Map and Borg Rating of Perceived Exertion to obtain the subjective perception of the loading/unloading operator painting department at PT XYZ. Great risk of lifting the parts obtained through calculation using the NIOSH equation discomfort survey. Number of operator loading / unloading PT XYZ is 14 people and size of panel box that is used to study is 600 * 400 * 200mm. From the results of data processing, note that the operators had complaints of pain, discomfort, and tingling largest at the neck, shoulders and hips while the effort needed to lift the body parts according to the operators is somewhat heavy, door parts and baseplate is very light. In line with this, according to NIOSH Discomfort Survey, the operators are at risk of injury to the lower back. by using Anthropometric dimensions of workers from West Java, proposed an improvement tool in the form of conveyor table. Basic selection of conveyor table is the cost factor is quite low, and a relatively short time of manufacture.*

Keywords : lifting part, Nordic Body Map, BORG Rating of Perceived Exertion, NIOSH Discomfort Survey.