ABSTRACT

This study discusses about the problems that exist ini PT. XYZ. The problem was founded in the quality assurance division, which was the risk of Low Back Pain in spindle clutch component inspection caused by operator's work posture when doing the inspection. This study is reinforced by the results of the calculation of the RULAs final score of the operator's work posture which result in a value of 7, which means that investigation and changes are required immediately. In addition to the risk of Low Back Pain, there is one other problem, i.e. the duration of the inspection process because it is done manually. This manual process causes repeated checks due to unsupported processes. The check requires the operator to assemble the spindle clutch component with a screw manually. The purpose of this study is to develop the design of spindle clutch component inspection tool in PT. XYZ in accordance with the wishes of user using User Centered Design method as a concept to determine the design of spindle clutch component inspection tool parameters. The survey was conducted by going to and trying directly about the process of checking the spindle clutch component with semi-manual system and post as the base to spindle clutch component. The results of this study are the design of Spindle Clutch Inspection Tool (SCIT) parameters that can represent the wishes of users and present Effective, Safe, Healthy, Comfortable, and Efficient design (EASNE) with the result in the form of improved work posture with RULA which result in a value of 3.

Keywords : *User Centered Design, Spindle Clutch, RULA, Effective, Safe, Healthy, Comfortable, Efficient, Tools*