

ABSTRACT

PT. Pindad is an Indonesian government owned manufacturing industry specializing in military and commercial products. One of the products is special vehicles Panser Anoa 6x6. Some of the welding components build done on the operation 50th. One of the components that are assembled is the Rear Box which has a weight 70.6 Kg. Based on the results of observational studies found that the operator is working in awkward postures. Awkward postures can lead to health problems. The disruption is Musculoskeletal Disorders (MSDs) that damage traumatif of distraction from the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. Then use the Nordic Body Map questioner as one way to identify MSDs problem from operators.

Work posture assessment needs to be done as a proof that the existing conditions at the workplace posture is awkward postures. Assessment methods that can be used are Rapid Upper Limb Assessment (RULA) and Quick Exposure Check (QEC). The result is a work postures of operators on the operation 50 needs to be fixed. Action to Improveworking postures of operators on the operation 50th is improvement of work stations (in this case a work desk) for paying more attention to the human factor by using the approach to Ergonomics.. Anthropometry data from operator and the object data that is carried out by the operator is required. Important criteria to repair work station rear Box Assembly was spared an awkward posture operators and the table is strong to withstand the compressive force of 693 N (70.6 per kg).

To meet both these important criteria then it will do two simulations. The first is a simulation method using workplace posture RULA on software CATIA V5R20 P3. The second will use the simulation from Study Analysis to measure the safety of the design on the software of SolidWorks 2012. The result is a work table that has a score of RULA 2 (safe) for each simulated work posture. A work desk is also feasible to hold the back of the press Box style because it has a value of Factor of Safety (FOS) of 1,83 (ideally 1-3).

key words : *Rear Box, MSDs, Ergonomic, Work Posture, RULA, Study Analysis, Simulation.*