ABSTRACT

Manual Material Handling (MMH) is every lifting activity (including turning, bending, lifting down, pushing, pulling, or carrying) by a worker in order to move the load from one place to another. If it done with a wrong technique or in poor condition, musculoskeletal injuries could be occurred the worker. Further more if it done repetitively and frequently.

Unloading gunny sack activity at Full Empty Store Department is one sample of a manual material handling which has a high risk of MSIs with 56 kilos of load weight (28 kilos for each worker) and 230 times lifting each worker per day. That was proved by the result of heavy, frequent and awkward lifting analysis which shown that the weight limit for the lifting activity is only about 12.72 kilos whereas the actual weight is 28 kilos. Then with the same analytical technique and the same actual weight shown the increasing of the weight limit up to 28.64 kilos after the sliding tool is designed. Height of sliding tool is 0.718 meters which is determined from anthropometric calculation. Means that by designed sliding tool, musculoskeletal injuries (MSIs) risk can be clear.

Key Words: Manual Material Handling (MMH), Musculoskeletal Injuries (MSIs), Heavy, Frequent and Awkward Lifting Analysis, Actual Weight, Weight Limit, Anthropometry.