

## Material Handling In Industry-Ergonomic Approach

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### Abstract:

Manual material handling in industry causes stress in workers and if it is repetitive it causes permanent injuries mainly back pain.(1) This injuries first effect the worker, it reduces performance of worker which reduces efficiency of industry.(2) It increases compensation claims which result in financial burden on worker as well as industry. Ergonomics gives solution to this problems it gives correct method of material handling, how to overcome stress, how to reduce compensations and finally maintaining efficiency(3).

**Key words:** Material Handling, Injuries , Ergonomics.

### Introduction and Discussion:

Manual material handling lead to stress in workers, it lead to awkward postures Sometimes lead to permanent injuries in workers ,which is very dangerous from worker point of you, at the same time decreases efficiency of industry .therefore in order reduce the damage to worker as well as industry, industry can use some devices and equipment which increases work performance and reduces injuries in worker.(1)



**Figure:1 Proper method of lifting low capacity weights manually.**

As shown in figure for low capacity weights must be lifted first step placing item in between knees ,sitting and slowly lifting as shown in step two , slowly standing with item as shown in step three, slowly standing as step four(2).

As shown in the figure:2 ,it reduces bending of worker, a weight lifter device is provided to lift flower pots which increases efficiency of work, improves performance of worker and reduces injuries due to bending. More output can be obtained by the worker in a stipulated time. Worker also enjoys doing his work get involved in work.This type of devices reduces stress , disorder in back of worker(3).



**Figure:2 Lifting flower pots by weight lifter.**



**Figure:3 Powered Tilter for lifting heavy weights.**

As shown in the figure:3 A powered tilter which will be useful for lifting heavy weights. Here human energy is saved to much extent, work is done at faster rate, more output is obtained in short duration of time. Injuries due to lifting weight will be almost negligible, which reduces compensations, claims due to injuries(5).



**Figure:4 weight lifting by machines.**

As shown in the figure weight lifting by machines reduces disorders in worker. The weight to be lifted is placed properly in handles of the machines and is placed where it is required. Manual lifting is avoided, less number of workers are sufficient once the training is given to them to operate .

(5) As shown in figure3 i.e power tilter and figure 4 i.e weight lifting machine requires initial training to operate them. This type of machines drastically reduces number of work force and improves industry efficiency. It reduces disorders like back pain, stress due to repeated work, avoid injuries

### Conclusions:

As discussed in the introduction and discussions with introduction if helping aids to worker like pot holder in agriculture sector, powered tilters, weight lifting machines and proper methods of lifting in manual weight lifting reduces stress, pain and injuries to worker, improves efficiency of industry, reduces compensations, which useful for industry as well worker which develop good working environment in industry.

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