

Spot The Safety Violation: Take 5 Steps to Protect Workers Handling Materials



Why did this trolley carrying a load of pipes fall over'and what do you think happened to the worker pushing the trolley at the time'

Handling various types of materials in the workplace is a basic component of many workers' jobs. When workers manually handle materials, such as by carrying bags or boxes by hand, they're at risk of suffering musculoskeletal injuries, such as strained backs. And even if workers use mechanical means of handling materials, they can be endangered if such equipment tips over or malfunctions.

For example, this picture from Great Britain's Health and Safety Executive shows the aftermath of a safety incident at a metal company.

A 24-year-old worker and a co-worker were moving a trolley carrying a bundle of 18 stainless steel bars, which weighed about 900 kg. The trolley tipped over and the bundle of bars fell off the trolley and onto the young worker, trapping his leg and foot.

His right leg was broken and his right foot was badly crushed. Despite a number of operations, most of his foot had to be amputated and he now has a prosthetic foot. It was many months before he was able to return to work and he's currently only able to work part-time.

The HSE investigation found that the company had bought the metal trolleys for use as workstations, but workers had chosen to use them to move metal stock around the site. And there was no risk assessment or written system of work procedures for using these trolleys.

The company pleaded guilty to a safety violation and was fined £130,000.

TAKE 5 STEPS TO PROTECT WORKERS HANDLING MATERIALS

The OHS laws require employers to take steps to protect workers from the hazards posed by materials handling, whether they're handling materials manually (such as by lifting and carrying the items) or mechanically (such as by using a hand

cart or forklift). To comply with these requirements and protect workers when handling or moving materials, [take these five steps](#):

Step #1: Assess the Hazards

First, assess all of the hazards associated with materials handling. For example, if workers must lift and carry heavy objects by hand, they risk hurting their backs. (You can use [this form](#) to assess the risks when workers must push or pull materials or equipment and this [checklist](#) to assess lifting hazards.) And if workers use forklifts, pallet jacks and the like, they can get injured by such equipment if it isn't used and maintained properly.

For instance, the trolley involved in the incident in the picture had faulty wheels and there was no record of any maintenance being performed on it.

Step #2: Require Mechanical Materials Handling When Possible

The preference under the OHS laws is generally to move materials mechanically rather than manually unless it's not '[reasonably practicable](#)' to do so. Using mechanical means will often eliminate the hazards raised by moving materials manually. For example, require workers to use hand trucks to move boxes instead of carrying them.

But remember that mechanical materials handling also poses risks to workers. Moving the bundle of steel bars in the picture by trolley was generally safer than having workers carry the very heavy bars. However, using the trolley to move the bars clearly wasn't risk-free.

Step #3: Implement Safe Work Practices

As with all tasks, you should set safe work practices for the manual and mechanical moving of materials. For example, establish weight restrictions on how much one worker can lift

or carry alone and require workers to inspect any rigging used to move materials before every use.

Also, make sure that workers don't overload equipment. For example, the trolley in the picture had a safe working load of 500 kg'yet nearly double that weight was placed on it at the time of the incident.

Step #4: Require Use of PPE

You may also need to ensure that workers use appropriate PPE to protect themselves from certain materials handling hazards. For example, require workers to wear appropriate [safety shoes](#) to prevent them from slipping while carrying materials and to protect their feet in case they drop a load of materials.

Step #5: Train Workers

As always, train workers on the hazards related to handling materials and on your related safe work procedures. Also, document the materials handling training provided to workers and take steps to verify that this training was effective, such as by quizzing workers or making them demonstrate the techniques they've been taught. And retrain workers on a regular basis and whenever there are changes in the types of materials, the workplace, equipment, operations or other conditions not adequately addressed in their prior training.