Manual task case study: Unloading containers – TJM Products

TJM Products manufactures 4WD equipment including bull bars, side and rear protection bars, sports bars, roof racks, side steps, tyre carriers and canopies.

What was the hazardous task?
TJM carried out a risk assessment that identified unloading shipping containers as a potentially hazardous manual task.

TJM's raw components arrived in tightly packed shipping containers from China. Workers were manually unloading individual boxes, each weighing an average of 12.5 kg. Unloading each container took six workers approximately six hours.

What were the risk factors?
The risk assessment identified that unpacking shipping containers involved manually intensive work. The manual task risk factors with the potential to cause sprain and strain injuries were forceful exertions, awkward postures, repetition and duration.

What was the solution?
TJM eliminated the manual handling aspect of this task by redesigning the packing and unloading processes. TJM management negotiated with their overseas supplier to adopt a new palletised packing process to allow TJM workers to mechanically unload goods using a forklift.

Background
In 2010, TJM took part in a trial of a program to manage the risks of manual tasks. The Participative Ergonomics for Manual Tasks (PErforM) program helped teams of TJM employees to identify, assess and control high risk manual tasks.

Who was involved?
The cornerstone of the PErforM program is to encourage workers and management to work together to manage risk. A range of TJM employees contributed to the success of this trial:

- Workers used their knowledge of the job and task.
- Management provided high-level support for the process.
- A worker was trained to become a PErforM site champion and drove the process within TJM.
- An ergonomics consultant was contracted to mentor the site champion.
Health and safety benefits
Minimised worker exposure to the manual task risks of unloading shipping containers.

Additional business benefits
- Eliminates damage to product packaging—previously, workers were manually handling and climbing on boxes, which would often cause product damage.
- Product arrives pre-sorted, resulting in further quality improvements and labour savings.
- Easier storage.
- No need to buy storage pallets.
- Quicker turnaround.

Cost benefits
Direct intervention costs: Minimal, as the supplier carried the cost of palletising the product. Also, the overseas visit to the supplier had a different primary purpose and wasn’t solely to discuss how the shipping containers were packed.

Post-intervention benefits: $22,540 annual labour saving for TJM ($1610 labour saving/per container).

Cost recovery period: Immediate.

More information
While this case study is from the manufacturing industry, the PErforM program has been used successfully in a wide range of industries and can be applied to most types of hazardous manual tasks.

For more information about the PErforM program and additional manual task case studies visit the Workplace Health and Safety Queensland website www.worksafe.qld.gov.au or call the WHS Infoline on 1300 369 915.