

Workplace Health and Safety Queensland

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.

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.

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.

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.



Before: Workers manually unloading boxes



After: Palletised product

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.

© The State of Queensland (Department of Justice and Attorney-General) 2011

Copyright protects this document. The State of Queensland has no objection to this material being reproduced, but asserts its right to be recognised as author of the original material and the right to have the material unaltered.

The material presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations, or warranties about the accuracy or completeness of the information contained in this publication, and the reader should not rely on it. The Queensland Government disclaims all responsibility and all liability (including, without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason.