

# Loads better

An advanced load weight monitor for trailers is among developments aimed at improving efficiency at loading bays, while also helping to prevent accidents. John Challen reports

Given that loading bays have, over the last five years, accounted for 31 fatalities and more than 6,000 injuries, there is potential to improve health and safety levels at this end of transport. Loading bay equipment and lift supplier Transdek believes it has a novel solution.

Its equipment, currently on trial at an unnamed operator's distribution centre, is dubbed the load weight monitor (LWM) – which claims to do exactly what it says, but in more detail than many. Transdek operations director Leon Butler explains that, where double deck trailers are concerned, operators tend to use an 18:8 tonne safety loading ratio for the bottom versus the top. However, he also makes the point that a dry freight double deck trailer's maximum payload is 26 tonnes – with a maximum of 12 tonnes on the top and 14 on the bottom.

The LWM calculates loads for the upper and lower decks independently. Loading bay operators get load information, as it happens, via an HMI screen on the LWM's control panel. That shows maximum weight, how much is loaded on the trailer per deck at that moment and remaining weight available. If the maximum weight is exceeded, the scale is shown in red and an alarm sounds, indicating that the limit has been breached.


"When we're designing lift software for a particular site, we enter the [allowed weight] parameters and the lift compares against those weights when product is put on the platform," states Butler. He suggests that live updates of the weights loaded are key to eliminating overloads and also the time otherwise spent unloading when thresholds have been exceeded.

"When a double-deck trailer goes onto a weighbridge, the load distribution between the top

and lower decks is not given," he reasons. "There could be 15 tonnes on top and nothing on the bottom, thereby making it unstable. Yes, [a load indicator] would show the trailer to be underweight, but not where the weight is or whether that was a problem."

## Cost-cutting exercise

Butler reckons that an overweight trailer leaving the loading bay, getting weighed and coming back for re-loading wastes around three hours and works out at around £500. As well as proving that those costs can be eliminated, the LWM's current six-week trial is designed to show that the equipment won't get damaged in a typical loading bay environment and to ensure that the software is in line with the expectation of a distribution centre.

Ultimately, Butler expects further equipment rollouts throughout the company's distribution centres this year. He adds that Transdek's latest lifts are designed with health and safety top of mind. "To cut manual handling operations, the loading platform [for the lifts] has been widened and made robust enough, so that roll cages can be moved onto the lift platform using mechanical equipment, rather than people. It also has a separate personnel walkway, from the front to the back, so segregating the user from the product itself." 

## For more information

The Health and Safety Executive's website features a page dedicated to loading bay safety, with advice, suggestions and guidelines on how to improve overall safety when loading and unloading. Go to [www.hse.gov.uk/workplacetransport/loading.htm](http://www.hse.gov.uk/workplacetransport/loading.htm) to find out more.

