



Case Study - Provision of safety barriers on a mezzanine floor

Problem

Following a review of a risk assessment an employer was concerned about the risk of falls from openings along the edge of a mezzanine floor when pallets were being placed and retrieved using a fork lift-truck. Removable metal bars and chains were placed across the openings when they were not in use. This relied on the operators remembering to put the bars and chains back after use. The employer was also concerned that the chains would give inadequate protection if someone fell against them.

Risk assessment/planning and organisation

The employer considered the use of a harness system which, when worn, would prevent the operator from getting to an unguarded edge during loading. However, if a second person approached, they would have nothing to stop them falling from the open edge. In addition, there were time consuming issues and costs relating to training the user and inspecting the equipment. There would also have been a danger that the trailing line used with the harness system would constitute a tripping hazard for other workers.

Solution

The employer decided to install special pivoting safety barriers which would provide continuous edge protection for all employees and not just the person engaged in loading. When a pallet is being landed from below, the barrier is arranged so that it provides a pallet sized opening at the mezzanine edge with the internal edges guarded. Once the pallet is landed, the barrier is pivoted forward so that the mezzanine edge is now guarded and the pallet can be accessed from the mezzanine platform without the risk of a fall.

The safety barrier provided collective protection for all employees and was therefore a better alternative to providing a harness which would only protect the wearer. Employees also no longer had to remember to put the bars back in place and the unsatisfactory system of using chains was removed.

How was this solution reached?

1. The review of the risk assessment showed that people working on the mezzanine floor were in danger of falling from height. The bars and chains previously used were not sufficient to protect workers from these dangers.
2. The use of harnesses was discounted due to the inherent risks to anyone not wearing the equipment and the additional costs.
3. The employer decided that the best way to counteract the risk was to install a new system of pivoting safety barriers. This ensured that edges were guarded at all times. They also ensured that all employees, rather than just individuals who would have benefited from the use of harness systems, were given protection.