Reducing falls from vehicles

This case study is part of a series, which give examples of good practice to reduce injuries due to falls from vehicles through sensible management of health and safety risks in the workplace.

The challenge

As principal contractor at the British Gypsum factory, Sherburn in Elmet, Bovis Lend Lease were working on demolition and large scale extension works to the existing buildings. The extensive steelwork elements of the project were carried out by William Hare Ltd. The site was large, but had the added complication that the British Gypsum factory was still operational.

Bovis Lend Lease and William Hare Ltd had to safeguard operatives, who were unloading deliveries of steel, against falls from the bed of the vehicle. Often steel can be unloaded using a forklift truck. However on this project, some of the steel deliveries were too heavy, too long or awkwardly shaped for the forklift truck to lift. Therefore, operatives needed to access the bed of the vehicle to sling the steel and so risked falling from the vehicle.

The solution

William Hare Ltd adopted a method used previously for small sites in London. It is a trailer edge protection system, developed and fabricated within the company (patent pending). It has a steel universal beam at its base, using welded galvanised steel standards (which include holes at various levels). The system is secured to the trailer using ties. Fitted within the standards are extensions, fixed in position by bolts in the lower standards. Fitted to the extensions are four horizontal guardrails. These are spaced at no more than 450mm, providing scaffold-like edge protection. The system can be raised up to 16 feet from the floor, with any adjustment being made using the holes/bolts in the standards, depending on the height of the steel load. This gives collective fall protection at different levels. The system is available in different sizes, to suit different lengths of trailer. In addition, the trailer bed is accessed using aluminium podium steps or, where space allows, a purpose-built gantry stair system at the rear of the trailer.

The results

The system prevents operatives falling when loading or unloading vehicles and is relatively quick and easy to install. The system can be left in position and vehicles driven between parallel sets of standards, where they are spaced at the correct width for the vehicle, or the edge protection positioned after the vehicle is parked up ready to be unloaded.

Access onto the bed of the vehicle is by steps with handrails. Flexible height adjustment means the system can adapt to differing load heights. The system is also easy to manoeuvre using a crane or forklift.
Figure 1 Trailer edge protection system with access platform and steps

Figure 2 System in use