

Select improve access to flat-bed trailers and rigid vehicles

Reducing falls from vehicles case study 13

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

Select Plant Hire Company Ltd provide earth-moving machinery and tower cranes to sites operated by their parent company, Laing O'Rourke. The larger earth-moving machines are transported to site by low loader, but smaller machines, tower crane sections and test weights for the tower cranes are transported by either flat-bed articulated units or 8 wheel rigid trucks. While some loads can be secured by throwing the straps across the load, others can only be safely secured by accessing the bed of the vehicle to attach straps to the tie down points. Access is also necessary to sling certain loads.

While carrying out a risk assessment on the loading/unloading operation, Select identified a need for a safer way to access the bed of the vehicle. Drivers were typically climbing onto the bed of the vehicle by using the under-run bars as steps. However, Select were unable to identify any suitable access system commercially available, so decided to develop their own system.



Figure 1 Ladder in use on flat-bed trailer

Select's criteria for the access system:

- It should clamp on to the vehicle or trailer to prevent the ladder slipping or moving in use.
- It should have a handrail which extends 1 metre above the bed height of the vehicle, regardless of the height of the vehicle bed.
- It must suit Select's entire range of vehicles, which have various designs of bed-edge steelwork.
- It should be able to be mounted at various points around the bed of the trailer to access different parts of the vehicle load.

Their design of access system is shown in the photos below. The design is based on a class 1 industrial ladder, fitted with a sliding bed-plate and two ratchet clamps (Figure 2) which securely hold the ladder against the bed of the vehicle. The handrail is fixed to the clamp system and therefore always remains 1 metre above the height of the vehicle bed.

When not in use, the ladder remains with the tractor unit (if fitted to an articulated trailer) and is stored behind the cab with a locking system to prevent theft.



Figure 2 Showing ratchet clamping system

The results

Select has significantly improved the access to its fleet of flat-bed vehicles and trailers.

Following 12 months of successful trials with two prototype ladders, which showed a high level of driver acceptance, two pre-production ladders were ordered, along with a batch of 25 production models from a local manufacturer. The cost of the ladder in production quantities is around £250 each.

The medium term objective is that all company flat beds and articulated units, and all similar vehicles provided by contractors will be fitted with this access system to reduce the risk of falls from vehicles.



Figure 3 Access system in use