



Beating

Annual HSE stats on numbers of drivers injured each year through falls from trucks don't make comfortable reading. Brian Weatherley looks at risk management techniques adopted by safety-conscious fleet operators



Every year, the HSE (Health & Safety Executive) records some 2,000 'falls-from-vehicle' accidents – 800 of which involve major injuries, with up to five fatal. Faced with such figures, fleet managers charged with creating practical WAH (working at height) solutions might be forgiven for focusing first on activities involving drivers at greatest height. Yet, according to the HSE's Health & Safety in Road Haulage publication, most WAH injuries involve falls from less than two metres. Armed with that fact, where would you start?

For artic operators, one of the most obvious danger zones is the catwalk behind the cab. Where these were once little more than narrow working platforms, safety-conscious fleets are increasingly specifying what SB Components' operations director James Warren calls full-chassis catwalks. "We cover the fuel tanks and batteries," he explains. "It's all one-piece, flush-level, so there are no trip hazards."

As well as offering safer, larger working areas, full-chassis catwalks prevent drivers' feet from slipping down between the chassis rails and battery box or prop-shaft, where broken ankles or legs could result. According to the Wisbech, Cambridgeshire-based firm, uptake recently has been massive. "We're

doing up to 3,000 catwalks a year," says Warren.

And SB's roster of catwalk customers doesn't only stretch to the major operators. "The biggest interest is undoubtedly from the fleets," reports Warren, "but we're also doing catwalks for owner-drivers. They can be on 6x2s or 4x2s, although, with a 4x2, there's more area to cover. Weight-wise, they range from 40 to 85kg."

Warren also points out that, whereas catwalks were originally built using chequer plate, 95% of SB's output now uses reverse-punch aluminium. "The hole stands out proud and gives a lot better grip, certainly during the winter," states Warren. "If it rains overnight and freezes, with chequer plate it just sits on the catwalk. With reverse-punch, the water can escape, so you haven't got patches of ice."

And, in future, SB's catwalks may help with fuel-savings, too, with aerodynamic full catwalks. "We've been doing fuel trials and we're getting some fairly good results – although it's early days."

Warren accepts that fleet operators are trying to keep drivers off the backs of their cabs, but believes that, for many, there will always be reasons to access the area. "It's not just about connecting trailer suzies. You've got tipper operators with hydraulic connections and people with blowing equipment.

Above: Jempson & Son's Fallcheck fall-arrest system, now offered via a joint licensing agreement with Montracon

the drop zone

Then there are additional connections for charging batteries on trailers, Anderson connectors and reversing-camera suzies.”

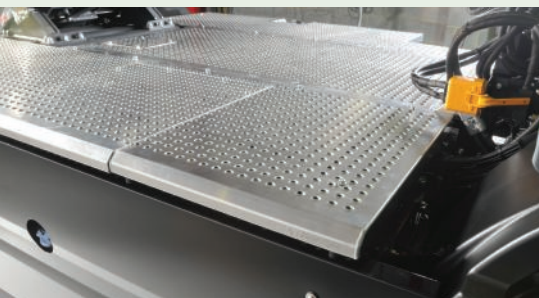
If, however, the WAH issue is just connecting trailer suzies, ground-mounting coupling systems – which have a sliding suzie connector-box travelling a rail – present a good solution. These have grown in popularity since the Montracon Articulated Vehicle Interconnection System (Mavis) launch in 1996. Indeed, what was developed primarily to overcome access difficulties when connecting to trailers with front fridges is now fitted to around 25% of all Montracon's production. And although adding 1–2% to the trailer's cost, Montracon reports growing interest in Mavis as “advice from HSE and IRTE creates an increasing awareness of the problem”.

Ground-level coupling

But Montracon is not alone. More recently, Don-Bur has worked with fleet customer DHL to jointly develop another safe ground coupling system, branded LowGlide. Designed to work with drivers of different heights, it has been fitted on several of DHL's box and curtainsider trailers. And having created the original in 2010, based on an electro-pneumatic arm with a coupling-box that swings down to the side of the trailer's front-bulkhead, the system is now in its second iteration, based on a simplified arm, currently being trialled.

Don-Bur marketing manager Richard Owens says the Mk II LowGlide has been developed as a low-height version of the Mk I (which remains DHL's specification). It takes less space and is better suited to controlled-temperature trailers, since it fits beneath a front-mounted fridge. “LowGlide's attraction is that it not only slides the coupling box out to the side of the trailer, but also drops down, making ground coupling much easier,” he says.

Meanwhile, Travis Perkins' UK distribution fleet



Left: SB's full chassis catwalk uses reverse-punch aluminium to ensure better grip, particularly during the winter



Above: Travis Perkins access step with grab handles. Developed in 2009 and fitted at the rear of all two-axle delivery trucks with front-mounted cranes

has developed different fall-prevention strategies over the years. Its primary issue was the growth in popularity of bulk bags for building materials, which initially meant finding ways of allowing drivers to climb safely onto truck load platforms to attach slinging loops to the vehicle's crane or fork-lift tines. Working with bodybuilder MTE, Travis Perkins first developed an access step with grab handles in 2009, which was then fitted at the rear of all its two-axle delivery trucks with front-mounted cranes.

Graham Bellman, director of fleet service, reports that, since fitting them, there have been no falls from his vehicles. What about extra weight and cost? “When the DAF LF was launched, the chassis length was longer than we needed for a 21ft body, so we used this extra length to house the steps,” he says. “There was some slight increase in kerb weight, but, due to savings in other areas, we kept it to around 120kg.” And, as for cost, at around £350 per vehicle, he says they're well worth the investment.

Interestingly, however, Bellman reports that the firm is now rolling out a new policy that prevents drivers from climbing on the backs of trucks at all. Its ‘Keep Your Feet on the Ground’ scheme has seen unloading procedures modified, with bulk bags now nipped between the brick-and-block grab attachment on the truck's crane. Drivers have been retrained and all 1,250 crane vehicles have had their grabs modified. Bellman reports that the new strategy is paying dividends. “By tackling this problem head on, rather than accepting existing practice, we not only made unloading safer, but



The Montracon Articulated Vehicle Interconnection System (Mavis), launched in 1996 for connecting to trailers with front fridges, is now fitted to 25% of all Montracon's production

we've reduced the time taken to offload bulk bags."

Other revised safety measures include pre-slinging packs of timber, plasterboard and insulation, so that each load can be attached to a crane's grab-hooks from the ground. "We've taken a major step towards eliminating falls from a vehicle's load bed by removing the need for drivers to take their feet off the ground," comments Bellman.

That's two approaches. Another, taken by Rye-based Jempson & Son, was to design a fall-arrest system, since patented and offered through a joint UK-licensing agreement with Montracon. Fallcheck was developed by Jempson's compliance manager Pete Verlander, also in response to the growing use of large bulk bags. It uses a flush-mounted, galvanised-steel track running down the centre-line of the trailer floor and holding a sliding anchor-block, onto which the driver clips a safety line. By restricting the driver's side and rearward movement, the device prevents him from falling off the trailer.

Drivers retain unrestricted movement along the

length of the load deck, since the HDPE (high-density polyethylene) block slides smoothly up and down the track. Jempsons also created an adjustable WPB (work positioning belt), with the safety line's attachment point in the small of the driver's back on the waistband. Cross shoulder braces prevent the harness from being pulled out of position, while a hook and loop strip at the front stops the straps falling off the driver's shoulders.

The WPB harness (with lanyard and sliding block attached) is stowed in a box at the rear of the trailer, so the driver can put it on before climbing onto the load bed. To attach the safety line, the driver simply lifts a flap over the rear of the recessed track, slides the grooved anchor block into the track and closes the flap again. To avoid debris jamming the block, four holes, with weather protection beneath, have been drilled along the track. There's also a larger vent at the track rear to allow debris to be removed.

Jempsons has now fitted Fallcheck to five flat-beds, two curtainsiders and a new Hiab-equipped rigid. "Now that customers know we've got trailers with Fallcheck, many are stipulating that loads be delivered on what they call safety trailers," states Verlander. Since introducing Fallcheck, Jempsons has not recorded any WAH incidents. **TE**



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