

# REVERSING FORKLIFT VS PEDESTRIAN

## Summary

A customer at a retail distribution centre had her leg amputated when she was struck by a reversing forklift which had just delivered a dishwasher and dryer.

**PETER BATEMAN** summarises.

## CONTEXT

- A retail distribution centre had a customer collections area behind its warehouse.
- Customers could park their cars there while awaiting delivery by forklift of their purchase.

## DETAIL

- Two customer vehicles arrived and parked in the collections area.
- One vehicle contained a married couple, the other their son-in-law.
- They went into the retail area and purchased a dishwasher and a dryer.
- The two men waited beside one car for the items to be delivered; the woman waited inside one of the cars.
- A forklift emerged carrying the items and drove to the back of the vehicle beside the two men.
- The forklift driver deposited the items on the ground and reversed the machine.
- At the same time the woman got out of the other car to take a photo of the items.
- She was struck by the reversing forklift.
- She was taken to hospital where her left leg was amputated below the knee.
- She also suffered degloving of her left thigh, lacerations, and a thumb fracture.



Courtesy WorkSafe NZ

## BACKGROUND

- The forklift's beacon light was not as visible as it should have been because the frame was broken so it was mounted below the roof line.
- Other lights on the forklift were not working at the time. The reversing beeper was working.
- There was no traffic management plan.
- The hazard register identified forklifts as a hazard but not that these hazards operated in the customer collection area.
- The register identified the control as a no-go zone, but there was no such zone.
- CCTV footage from the previous few weeks showed forklifts moving in and around pedestrians on a daily basis.
- The site held weekly toolbox meetings but there was no evidence that pedestrian/ forklift interaction was ever discussed.
- The company had inherited the site from a previous occupant. Redundant traffic management devices were left in place

and created confusion for staff and customers.

- A consultant later described the customer collection area as chaotic and unmanaged.

## LESSONS

- Forklifts and other mobile plant require a rigorous maintenance schedule and daily checks that all safety devices are operating.
- Pedestrians should never be put in a position where they might encounter mobile plant.
- Exclusion zones and physical barriers should be used to ensure this is the case.
- Site design can include separate entrances and exits for vehicles and pedestrians.
- The need for mobile plant to reverse can be designed out.
- WorkSafe's document *Managing Work Site Traffic* was published in February 2021.

# TRAFFIC MANAGEMENT LESSONS

**WES van DEVENTER** says this incident highlights important lessons regarding traffic management, vehicle maintenance, and the potential for new technology.

The investigation into this incident showed a lack of adequate segregation between pedestrians and machinery. There were no clearly marked pedestrian no-go zones or physical barriers to prevent pedestrian access to areas where forklifts operate. This lack of segregation has been identified as a significant safety concern, especially in the absence of a comprehensive documented traffic management plan.

An additional area for improvement is the implementation of a proactive maintenance and inspection program for on-site machinery, which includes installed safety features. The forklift involved in this event was found to have a non-functioning beacon light, and visibility was compromised by a single rearview mirror. Furthermore, the lack of completed maintenance check forms highlights the necessity for more rigorous safety inspections and strict adherence to protocols.

## TRAFFIC MANAGEMENT PLAN

Implementing a comprehensive traffic management plan and communicating it to relevant employees, contractors, and other parties involved is essential to prevent such incidents. This plan should include designated pedestrian zones, physical barriers to separate people from vehicles, and clearly marked pathways. Proper signage would also reinforce safe movements within the premises.

ShopCare's *Line Marking Guidance* – see [shopcare.org.nz](http://shopcare.org.nz) – is a comprehensive guide for commercial and industrial sites, aimed at standardising line markings in Aotearoa. Developed with the retail sector and its supply chain, the guide offers clear, uniform standards to improve visual communication and reduce accidents.



## AUDIT AND REVIEW

Every new business or site should undergo a health, safety and wellbeing audit or inspection by a qualified expert before opening. Companies should also strive to have experts review their existing environments and programmes regularly to ensure ongoing compliance and safety.

## TECHNOLOGY AND BARRIERS

Adding safety technology to mobile equipment and machinery is another way to reduce the potential for incidents. Examples include proximity sensors, camera systems, guidance lasers, and AI-powered CCTV solutions. AI CCTV can provide real-time monitoring, detect unsafe behaviours, and alert operators to potential hazards.

However, barriers exist to implementing these solutions. Financial constraints often prevent companies from investing in comprehensive safety measures and advanced technology, while the undervaluation of safety protocols can lead to

inconsistent application.

Many businesses are not aware of the guidance, standards, and resources available to them, while resistance to change and the potential disruption of operations during implementation of new safety measures also pose challenges.

## BROADER IMPLICATIONS

This incident highlights the need for stringent safety practices where heavy machinery operates near pedestrians. It reflects a broader trend of overlooking safety protocols for the sake of operational efficiency. Regulatory bodies must enforce stricter compliance and conduct regular inspections.

Addressing gaps in traffic management, maintenance, and training, and overcoming implementation barriers can prevent such accidents and promote safer, more responsible workplaces.

**Wes van Deventer** is Business Manager with ShopCare.