

WHITE PAPER

# Today's strategies for forklift and warehouse safety

Practical ways to use training, telematics, and lift truck technologies to help minimise risk in intralogistics and warehouse operations.

**Yale**   
LIFT TRUCK TECHNOLOGIES

Europe has seen dramatic growth in warehousing and related industries. With a greater workforce, comes greater potential for surging injury and illness rates. So how can your warehouse take steps to help reduce incidents and manage forklift safety?

## Why warehouse safety matters now

In recent years, warehousing and distribution centres have experienced tremendous growth. In terms of revenue, Europe accounted for 22.8% of the global warehousing market in 2024, and is expected to grow to a revenue of \$385.2 billion by 2030.

According to EU figures, the transportation and storage sector, which includes warehousing, employs around 10.4 million people.

The influx of workers into the warehousing industry, accompanied by high employee turnover, may exacerbate common safety challenges. In Europe, the transportation and storage sector has a relatively high rate of fatal and non-fatal accidents at work compared to other sectors, with big variation in incident rates between different countries.

Warehouse operations need to make improvements to reduce these injuries, and the lost days associated with them, addressing the root causes of worker injuries and taking steps towards rethinking health and safety practices.

Forklift accident prevention should be a key factor in establishing overall occupational health and safety in logistics as well as achieving safety compliance for lift truck operations.

## How to address lift truck safety

Lift truck safety is multi-faceted, site-specific and requires a comprehensive approach to adopting warehouse safety best practices. Warehouses can be busy, noisy and include hot and cold environments. Lift truck operators must carefully manoeuvre and place loads at significant heights and navigate tight spaces and congestion. Beyond the inherent complexities of working safely and effectively in these settings, each 90,000 or so square metres of warehouse space requires around 80 to 100 lift trucks, and difficulty sourcing and retaining staff can result in warehouses using a larger share of inexperienced operators.



## What are the most common forklift accidents in warehouses?

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Reducing workplace injuries in warehousing starts with understanding the types of accidents involving forklifts and some of the possible causes or contributing factors. Examples include:

- **Forklift tip-overs** – turning too quickly, uneven, or unbalanced loads, abrupt mast movement, turning on an incline and driving with the load elevated or on uneven surfaces.
- **Accidents involving pedestrians** – undisciplined or untrained work force, insufficient traffic separation between forklifts and pedestrians, improper use of warning signs, traffic controls and signals; pedestrian and operator inattention, including fatigue, distraction, and carelessness; and not looking in the direction of travel.
- **Falling loads** – lack of appropriate load backrest for the loads in question, damaged overhead guard, damaged forks, or attachment; moving, lifting, or tilting the mast too quickly; and improper load creation, including off centre, damaged and unsecured goods.
- **Forklift falling off a dock or trailer** – trucks or trailers rolling away; insufficient control procedures or dock locking equipment; slippery floors; worn or damaged truck or trailer floors; improper or missing dock plate; and undisciplined or untrained work force.
- **Personnel falling from forks or personnel platforms** – absence of or insufficient work policy regarding safe lifting practices utilising dedicated personnel lifting equipment; absence of dedicated aerial lifts; improper use of wrong equipment type for lifting personnel; use of unapproved, unattended, and unrestrained lifting platforms; lifting on sloped ground; and prioritising speed and convenience over safety.
- **Impacts with other equipment or objects** – operating too closely to other forklifts in front of or around the truck, travelling too fast for the warehouse layout, travelling without a full field of vision, or not looking in the direction of travel.



## What can warehouses do to help prevent forklift accidents and reduce risk?

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With complex equipment, tight spaces, and constant movement, the risks when carrying out materials handling operations in warehouses are real and ever-present. However, by combining the correct forklift training with fleet management solutions and operator assistance systems, warehouses can support safety standards while also improving operational efficiency.

# Forklift Safety Tips for the Warehouse

Here are 11 actionable forklift safety tips, grounded in real-world challenges and supported by innovative approaches, which may help you safeguard your workforce and your warehouse.

## 1. ONLY CORRECTLY TRAINED OPERATORS SHOULD USE LIFT TRUCKS

How can warehouses train new forklift operators effectively? A comprehensive training programme that includes the tools needed to customise training to the specific site and trucks can help operations deliver fully compliant training in line with local regulations (EU regulations for forklift safety may vary in different locations).

Forklift telematics can also provide a solution. How can telematics improve forklift safety? Solutions such as [Yale Vision](#) include operator access controls where key cards can be used to limit equipment access to only operators with the proper certification and training, and track performance and training expiration dates for each operator. Always check local forklift operator certification requirements as these differ by region.

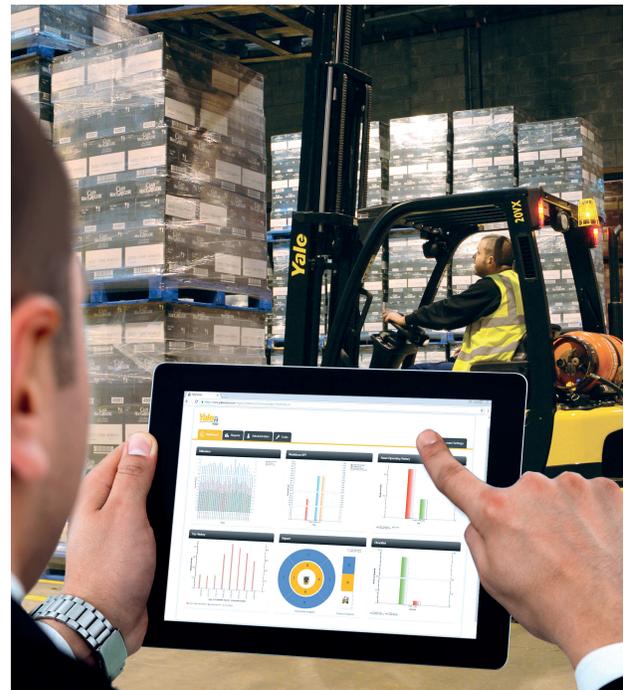
## 2. CONDUCT PRE-USE FORKLIFT CHECKS

Before operating a lift truck, operators should examine it for indications of anything which would make it unsafe to operate. Pre-shift checks, also known as pre-use inspections, may also be required by local safety legislation. What forklift safety checks are required before operation can vary between different countries.

Digital safety checklists for lift trucks are a technology which can disable truck use until the operator has completed the standard pre-shift checklist or other specific industry mandated checklists. This feature is available with the Yale Vision telematics solution.

## 3. USE SEATBELTS AND SEATS CORRECTLY

Robust training and certification programmes can educate operators on requirements such as fastening the seat belt before operating the lift truck, where applicable, and that it is dangerous for anyone to ride anywhere on the lift truck except in designated seating areas.



Completing digital safety checklists, as previously mentioned, can require operators to confirm that the seat belt is working properly before operating the lift truck. An impact camera, such as the Yale Vision Impact Camera, can also sync with telematics detection systems so when a critical impact occurs, video footage, with front and rear panoramic views, of the moments before and after a critical impact is automatically saved. This enables operations to get to the root cause of what happened, and take preventative action.

## 4. DON'T EXCEED THE RATED LOAD - ENSURE IT IS STABLE AND BALANCED

Training helps educate operators on the importance of never exceeding the rated weight of the lift truck and the potential consequences of picking up an overweight, unstable, or unbalanced load. In addition, operator assistance solutions may provide extra support for safe load handling procedures in particular applications. For example, an advanced dynamic stability feature like the Yale Dynamic Stability System (DSS) can send audible and visual alerts to the operator to help promote safe operating practices. It may help operations to minimise the likelihood of forward and sideways tip overs.

## 5. MAINTAIN SAFE CLEARANCES

Training should cover the importance of maintaining proper clearance at all times.

Leveraging location data from forklift telemetry systems can also help identify efficient routes and areas prone to impacts to influence facility layout and traffic pattern changes to provide a solution for problem areas.

## 6. PICK UP, PUT DOWN, AND STACK SAFELY

Following safe procedures for picking up, putting down and stacking loads is a basis for forklift operator training. Assistive technologies are not designed to replace these operator skills and knowledge. However, they may add additional support and provide a layer of confidence for less experience operators.

## 7. KEEP A SAFE DISTANCE

Preventing forklift tip overs and collisions is a core part of warehouse safety. During forklift training, operators are typically taught the hazards of tip overs and falling off docks, and learn the importance of keeping a safe distance. Keeping away from platform, ramp, and loading dock edges, and never backing up a forklift to the dock's edge, is typical best practice.

This best practice can be backed up with assistance technologies like pedestrian awareness cameras or lights.

## 8. OBSERVE THE SPEED LIMIT AND AVOID PEDESTRIANS

Rules around pedestrian traffic can differ widely from facility to facility. However, forklift training programmes should include pedestrian interactions with forklifts and unique site-specific rules such as right-of-way and speed limits. Sounding a horn at cross aisles and in obstructed areas is a basic element of forklift operation that is covered in training and may help improve awareness between pedestrians and lift trucks.

However, some warehouses may choose to implement object detection systems for added support.

## 9. SLOW DOWN IN CONGESTED OR SLIPPERY AREAS

Correct forklift training should cover the need for operators to know when to slow down to match their surroundings, including congestion and slippery surfaces.

## 10. FOLLOW MAINTENANCE AND REPAIR RECOMMENDATIONS

Maintaining and repairing vehicles in accordance with manufacturers' recommendations is not just about compliance. Modifications or additions to the forklift can also affect capacity and safe operation. Fleet management tools, such as Yale Vision telemetry, may help support planned maintenance programmes and can also help in reducing downtime through predictive maintenance.

Access to certified technicians same-day or even outside typical business hours can also help maintenance and repairs to be completed in accordance with manufacturer standards, quickly. The network of independent Yale dealers can support warehouses with this, empowering operations with confidence and greater uptime.

## 11. DON'T USE FORKLIFTS IN UNSAFE CONDITION

Pre-use checks or inspections for forklifts is typically covered in the foundational level of forklift training. But how to conduct these checks is just one part. Whether they use a paper checklist, or a digital checklist in a tool like Yale Vision, operators must also feel that they can remove forklifts from service if they do not pass any aspect of the required inspection.

Sometimes, an issue does not present itself until later, when a forklift is in use. Engine, transmission, hydraulic and electric system monitoring can trigger automated service calls. Lift truck telemetry systems may also include an impact lockout solution, which protects equipment from prematurely returning to operation following a critical impact event.



## Creating your forklift safety strategy

Operator training, compliant with local legislation, is an essential foundation for safe operation. A properly administered forklift and pedestrian training programme is a highly effective means of significantly reducing forklift accidents.

Warehouses seeking additional support to prioritise safety within their operation can also evaluate opportunities to leverage technology and support from experienced lift truck operator training or fleet management professionals.

Lift truck technologies can provide varying types and degrees of support for managers or operators, such as providing a data-based view of problem areas or operating practices that require attention, helping to enhance situational awareness or even automatically reinforcing operating best practices.

However, every warehouse is unique, and the right solutions will always depend on the needs of the specific application. An independent Yale dealer can provide advice on the right options for specific warehouse requirements.

### Discuss forklift safety with an expert

Learn more about improving safety within your lift truck operations by [contacting your local Yale dealer](#).