WAREHOUSE BEST PRACTICE

WBP

UKWA

2018

Getting the most from your warehouse or distribution centre

Automation

What's driving the clamour to automate UK warehouses?

Information technology

Few things are more mission critical than your WMS

Training

The big logistics skills challenge

Forklift trucks

Do diesel and gas forklift trucks have a future?

Storage

Value-adding technologies and innovations

Property

The issues that are impacting upon the warehouse market

Health & safety

Any business can raise its safety game at little or no cost

OPINION

Technically safer forklifts

Alexander Glasmacher. Managing Director of ELOKON considers how technology can play a vital role in reducing forklift accidents

Whilst the number of industrial accidents is generally falling, this tendency is sadly not applicable to the operation of forklift trucks, so any technology that can improve on the current statistics should be adopted wherever and whenever possible.

In situations where personnel and machines work in close proximity – and the warehouse is a classic example of this – taking a cue from developments in the automotive sector, such as advanced driver assistance systems, can reduce risks and protect personnel.

ELOKON is a leading supplier of innovative RFID, radar and intelligent laser- based safety solutions and driver assistance systems for MHE, and incorporates the latest sensor technology used in the automotive industry in its distance warning systems, mobile personnel protection devices and fleet management systems.

The company's forklift assistance systems are comparable with those on cars in that they give various types of alerts – optical, acoustic or tactile – before or during critical situations. They can also intervene (autonomously or semi-autonomously) in the drive, steering or signalling functions to prevent incidents. Integrated warning systems can be configured to monitor specific risk zones or defined areas around machines and personnel, acting as a protective shield.

Increased levels of safety for drivers and co-workers can therefore be guaranteed in high risk areas such as blind spots, at busy intersections in the warehouse and during the transition from outdoor to indoor operation: driving speeds in yards are typically much faster than those applicable inside. Rather than relying on drivers, radar based systems can automatically reduce speeds when a truck enters the warehouse or production area and reverse the procedure in the opposite direction.

Advancements in the development of forklift environment sensors enable increasingly sophisticated detection of hazardous scenarios and preventative measures to be actioned. ELOKON's ELOprotect product for example is a self-actuating laser scanner anti-collision system for VNA operations which ensures that safe distances are maintained between pedestrians and forklifts, preventing accidents as well as collisions between the trucks themselves.

Taking a cue once again from the automotive sector, which has developed cooperative systems whereby cars are able to communicate with each other (Car-2-Car) or with their surrounding infrastructure (Car-2-X), similar products are now becoming available for the intralogistics sector. One example is a predictive accident alarm which is triggered when two forklifts are on a collision course; another is forklift navigation using RFID.

One important consideration when evaluating assistance systems is their ease of use and the potential distraction factor of alerts – whether they are flashing lights, audible alarms, buzzers and so on. Assistance systems should not overly distract drivers or other personnel. Ideally they should be easier to use than a car radio with easy menu navigation, a reduced number of operational controls and intuitive and easily understood responses.

Fleet management systems can also ensure that safety starts before the engine has been switched on: using RFID chips to identify drivers prevents improper use from unauthorised or untrained personnel, and electronic safety check lists verify that pre-operational inspection has been carried out. Shock sensors that record and report any impacts promote more accountable, responsible and therefore safer driving practices.

Recent and ever closer collaboration between forklift OEMs and specialist providers of assistance systems and sensors indicates a growing demand for these electronic guardian angels. Motorists have long been used to the benefits of in-car technology – it's now time to offer these more widely to operators of MHE equipment to make the warehousing and intralogistics environments as safe as possible.