CAN Newsletter Online

CAN NEWSLETTER MAGAZINE

Covid-19: More pallet stackers and forklifts are needed

In times of locked down economies with a lot of exit restrictions, online shopping increases. This causes more business for logistics companies requiring increasingly pallet stackers, forklifts, and other transportation equipment.

iF design awarded stacker truck (Source: Jungheinrich)

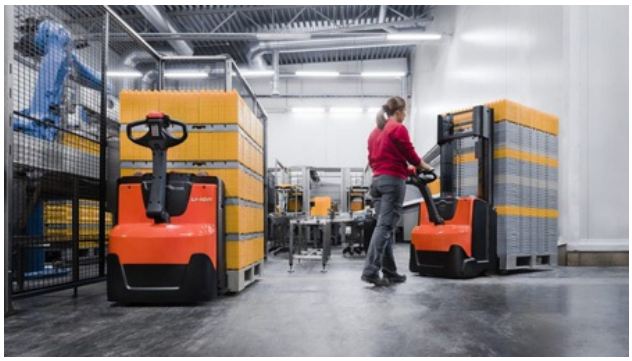
The complete article is published in the June issue of the CAN Newsletter magazine 2020. This is just an excerpt.

Besides Amazon, Alibaba, and other e-commerce companies, forklift makers are benefitting from the Covid-19 disease. The logistics centers of online providers need more pallet stackers and forklift trucks to manage the increased goods flow. Most of these vehicles are using embedded CAN networks. The market-leading manufacturers such as Toyota Industries, the Kion Group, and Hyster-Yale Materials Handling have equipped their products with CAN networks since more than two decades.

Already in the 90ties, the U.S.-based Industrial Truck Association (ITA) developed in cooperation with CAN in Automation (CiA) members some recommended practices for CANopen profiles to be used in forklifts. In Europe, the fork- lift suppliers also installed embedded CAN networks. Some companies developed their own higher-layer protocols, while others such as Jungheinrich implemented CANopen. First the big forklifts were equipped with CAN networks, but today even the smaller pedestrian pallet stackers make use of CAN.

iF-awarded

This year, the Jungheinrich ERC 216zi stacker truck has been awarded with the iF Design Award. Internally, it uses embedded CANopen networks. Due to its integrated lithium-ion battery, the vehicle is compact and agile. The German manufacturer has shortened the truck's length by eliminating the battery trough between the operator's platform and the mast, which was previously common in such trucks. It is at least 170 mm shorter than comparable trucks. This impressed the jury, who honored the ERC 216zi with the iF Design Award in the category Automobiles/Vehicles. The iF Design Award was first presented in 1953 and is considered the oldest independent design award.



Pedestrian stackers use CAN networks to improve diagnostics and to simplify maintenance; they also reduce the wiring effort (Source: Still)

In the development of the ERC 216zi, Jungheinrich paid special attention to the ergonomics of the truck. A fixed stand-on platform offers the driver support and comfort. This is an important advantage for the driver, especially during long periods of operation. The operating elements are arranged in such a way that they allow intuitive control of the truck. The vehicle also sets standards in terms of safety. The overhead guard according to ISO 6055 protects against falling objects. The fixed stand-on platform with its fixed side walls additionally offers the operator perfect all-round protection from three sides.

Configuration and diagnostics

Linde, another German supplier, uses in its electric-powered pallet trucks 1152 series and stacker range series 1172 also embedded CAN networks. Besides adjustments to operating parameters, CAN communication is applied for truck diagnosis and maintenance functionality. It monitors all key functions for diagnosis by a service technician. To minimize downtime and to increase productivity, the company also implements maintenance-free AC motors with CAN connectivity. The CAN communication enables diagnosis of the service data by laptops. Using this, the service technician can also adjust the performance parameters to the relevant use. In addition, they can reach all of the relevant forklift components behind the motor cover. This also shortens servicing time.

If you would like to read the complete article you can download it free-of-charge or you download the entire magazine.

cw