

New pallet stacker assistant protects people and goods

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Linde Material Handling launches new driver assistance system for pallet stackers

Two years ago, manufacturer and solution provider Linde Material Handling launched an intelligent driver assistance system for industrial trucks, known as the Linde Safety Pilot. There is now a comparable tool available for pallet stackers. The Linde Load Management system shows all important load data to the operator via a display and takes corrective action in the event of safety-critical operating errors. In this way, accidents causing injuries or damage to goods and equipment are avoided and internal material flow is even safer and more efficient.

The masts of pallet stackers Linde L14 to L20, with load capacities of between 1.4 and 2.0 tons, can lift goods to heights of more than five meters. If an operator misestimates the remaining load capacity, this can quickly become a safety risk for him and others in the warehouse. For instance, in the particular case of numerous large, heavy and lengthy goods of different dimensions needing to be moved, warehouse operators can hardly fall back on experience. They must laboriously calculate, by means of payload diagrams, the height to which they are allowed to lift the goods. If they do not do this, relying on their own gut feeling instead, the truck can tip over in the worst of cases. The same danger exists if operating errors occur during load transport or maneuvering, such as in the case of an operator driving with the load lifted or the tiller arm at too great an angle.

The Linde Load Management system provides invaluable support to the operator. A large color display shows the relevant load capacity information: the actual weight on the load arms on one hand, as well as the current and maximum permissible lift height on the other. In addition, the assistance system warns the operator when the mast approaches the load capacity limit. In this case, a yellow warning symbol appears on the display and an alert sounds at the same time, demanding additional attention. If the operator continues to lift the load further nevertheless, the system deactivates the lift function to prevent a safety-critical situation. A corresponding warning appears on the display, saying that the load capacity limit has been exceeded. Now the operator is unable to lift the mast any further, but can only lower it. However, to rule out cases such as a mast getting stuck with the load in the rack several meters above the ground, the locking function can be deactivated. To do this, the operator must explicitly acknowledge the warning. Additionally, a red symbol on the display and a repeated acoustic signal constantly remind him that the load capacity limit is being exceeded.

But that's not all. The exact information regarding load weight and lift height not only forms the basis for continuous calculation of the residual load capacity, but also serves to adjust acceleration and travel speed depending on the steering angle, load weight and lift height. This prevents the operator from turning the tiller too much at high speeds or accelerating too fast with a raised load, which would place the truck in an unstable position.

Pallet stackers Linde L14 to L20 are very popular as all-rounder vehicles for warehouse and ramp applications and are among the most popular warehouse equipment in Linde's range. The compact dimensions of the chassis, the long, deep and center-mounted tiller with ergonomically arranged operating elements, and the powerful lift drive and high residual load capacity of the vehicles are special features of this series.

Source: Linde Material Handling GmbH