KALP GmbH AUTOMATIC LASHING PLATFORM

system that can insert and remove twistlocks and stackers fully automatically, eliminating the need for personnel to work near or under suspended loads

the challenge

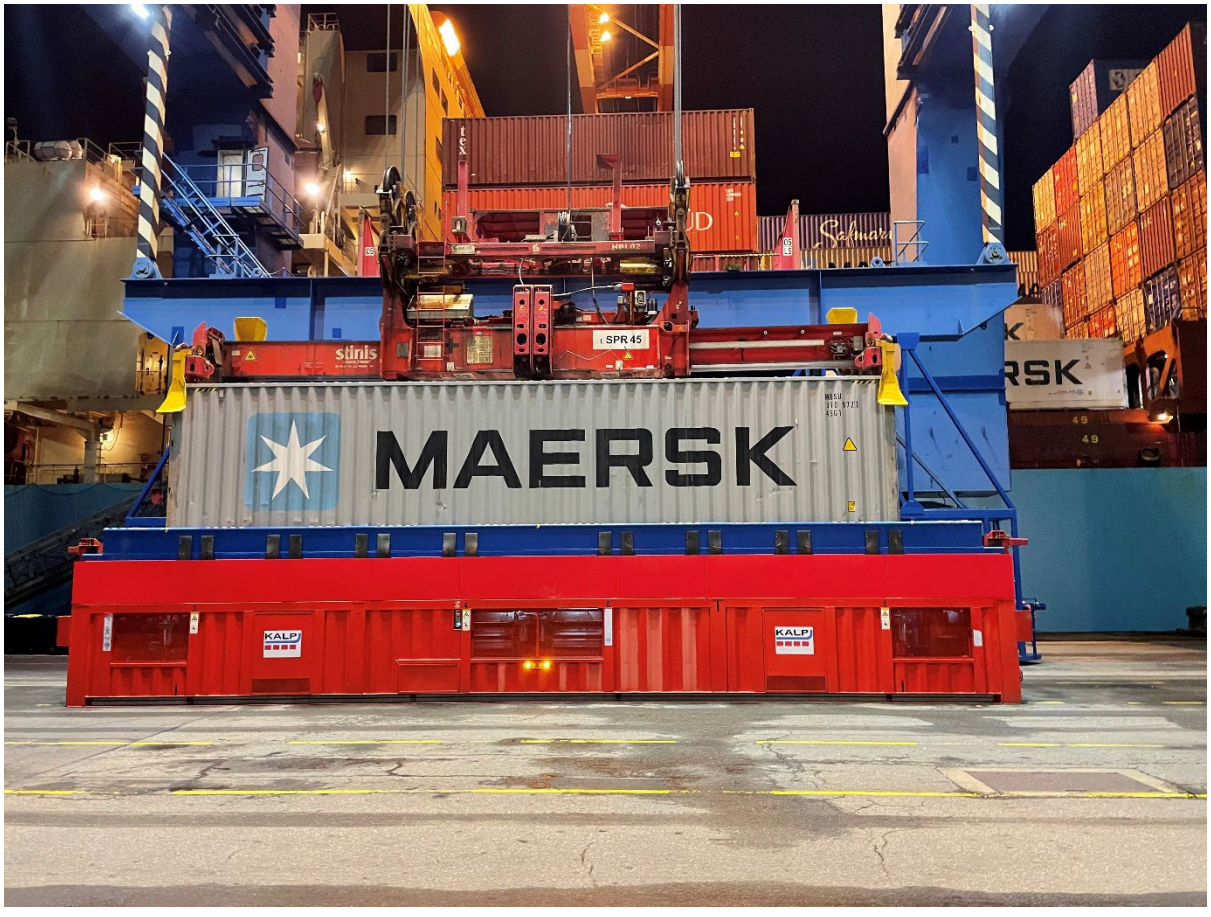
Even in the most modern container terminals, twistlocks and stackers are still removed from or inserted into container corners by hand. And this despite the fact that the manual lashing process has long been identified as one of the last major safety risks in terms of work safety.

Both work in the travel area of horizontal transport under the gantry crane and work under suspended loads repeatedly result in serious injuries to stevedores, including death.

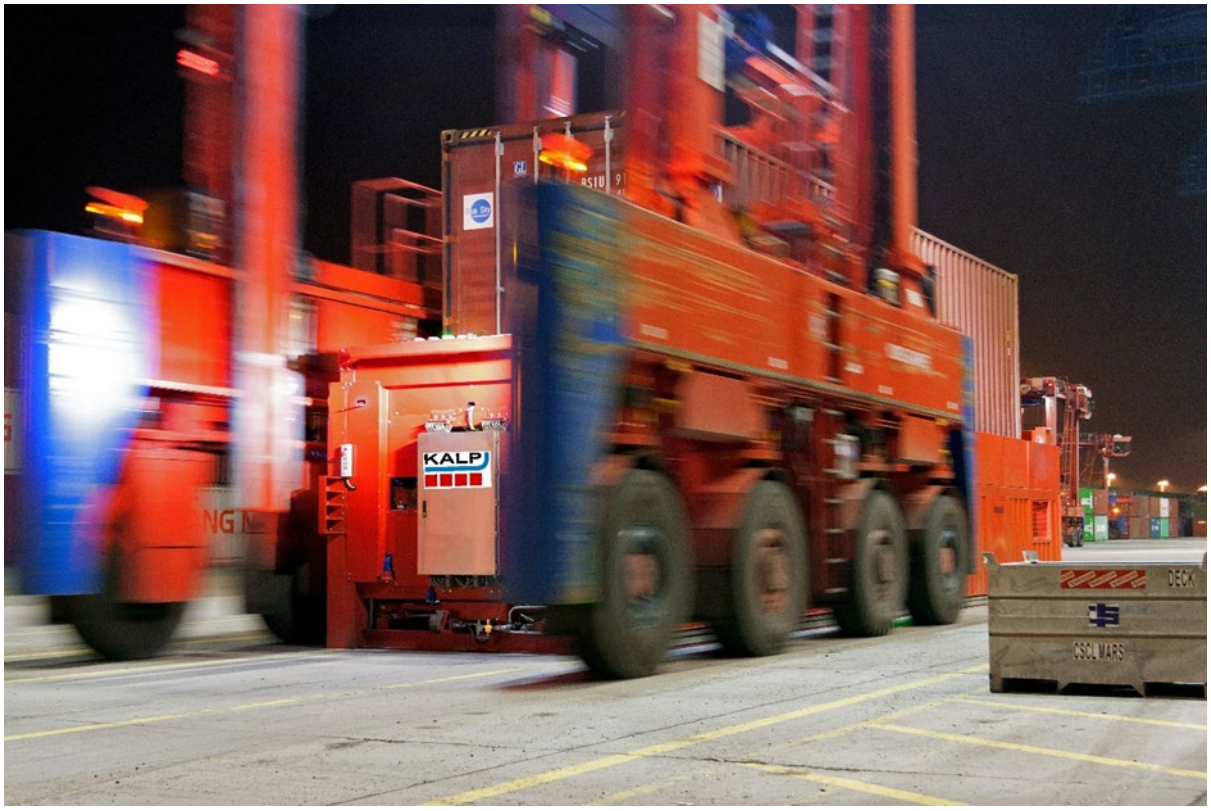
Numerous attempts to develop technology to eliminate the need of personnel working in the vicinity of suspended loads have been made during the years but with no or limited success.

the innovation

The ALP (Automatic Lashing Platform) is the only system on the market that can insert and remove twistlocks and stackers fully automatically, eliminating the need for personnel to work nearby or under suspended loads. The ALP operates independently of external power supply through an internal hydraulic system that utilizes the weight of the container and spreader. It has magazines that store over 1,000 twistlocks or 2,000 stackers (depending on sizing). This is equivalent to a bay of an Ultra Large Container Vessel.



The ALP can also be monitored and operated from a safe distance by integrating it into the terminal's own network and the corresponding integration software, or by using a handheld device.



how it was implemented

The ALP was integrated into German terminals in 2021 and 2024 and was used there in real operations.

To ensure error-free handling, the relevant terminal employees (gantry crane and horizontal transport drivers) were instructed by KALP GmbH in the use of the ALP.

what was the result

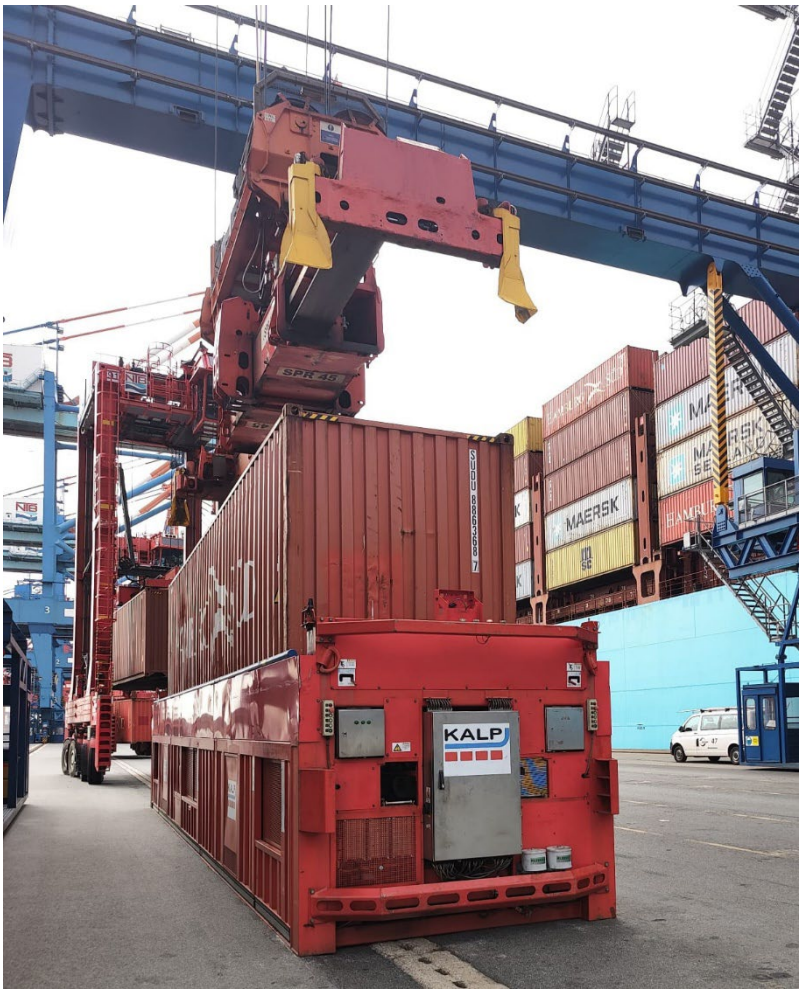
During the deployment of the ALP, there is no longer any need for personnel to be on duty under the gantry crane with suspended loads. In addition, an increase in productivity was observed during operation.

The general acceptance of terminal operators and employees working with the ALP (gantry crane and horizontal transport drivers) was also observed.

conclusion

In order to really fully automate a modern container terminal and, above all, to fulfil all safety aspects, the use of employees in the hazardous area under the gantry must be eliminated. The ALP has shown that it is possible to operate without the need for employees to be next

to suspended loads. This means that the ALP closes the last remaining gap in terminal automation and one of the last major risks for terminal employees.



In addition, the ALP can be used in any terminal. In modern greenfield as well as existing brownfield terminals. For running the ALP no changes in the terminal infrastructure are required.

The ALP is the missing link in terminal automation and a huge upgrade for each terminal safety concept!

LINK: https://www.kalp-gmbh.eu/

KALP
Autonomous Quayside Twistlock Handling

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