LaseLCPS-STS-2D LOAD COLLISION PREVENTION SYSTEM FOR STS CRANES 2D

The measuring system LaseLCPS-STS-2D enables the collision prevention of containers on the spreader of an STS crane with containers on a container ship.

THE MEASUREMENT SYSTEM

The use of robust and modern laser technology has the objective of reducing the risk of accidents during loading operations of STS cranes and preventing container collisions on the container vessel.

The measuring system consists of two laser scanners of the LASE 2000D Series, which are mounted positioned under the crane trolley. The laser scanners are oriented to the ground. The scanning planes extend parallel to each other across the row of containers in the direction of trolley travel. As the trolley passes over the ship, the measurement system generates a 2D profile. In addition, the spreader is always in the field of view of the laser scanners. By comparing the current load position (spreader with/without container) with the profile of the container stacks on the ship, collision avoidance is ensured. The application software evaluates the scan data measured by the scanner, performs calculations and sends the results to the crane PLC.

The LaseLCPS-STS-2D measurement system is primarily designed for STS crane operation and serves both to increase safety and an efficient container handling workflow. This innovative solution serves to reduce the risk of collisions and accidents during the loading and unloading of ships. In addition, with the so-called softlanding function, the system serves to gently set down containers and spreaders, which means a reduction in noise and reduced wear.



Software view: The transported container is constantly monitored.



Software view: A collision is imminent; an alarm signal is triggered.

THE FEATURES

- ✓ 2D container profiling
- Check of stack topography in cross travel direction
- Driver assistance

THE BENEFITS

- Collision protection between container on spreader and container stacks on ships
- Collision protection between spreader and container stacks on ships
- ✓ Gentle container handling through a soft landing
- ✓ Less spreader wear and reduction of noise emissions



FURTHER INFORMATION: LaseLCPS-STS-2D

THE FUNCTION PRINCIPLE



Retrofit solution: The scanners and reference plates are attached to the STS crane.



When seting down the container, the speed is reduced as the distance decreases.



In the event of an imminent collision, a warning signal is triggered.



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GLOBAL PLAYER FOR LASER MEASUREMENT SYSTEMS

For more than 30 years, LASE Industrielle Lasertechnik GmbH has been the global contact for high-precision and robust laser measurement technology for the port sector. With our 1D, 2D, 3D and multilayer sensors as well with our high sophisticated application software, our systems stand for more accurate, safe and efficient container handling. Our goal is to drive the automation of the port industry forward. With 30 offices worldwide through subsidiaries and business partners, we are always at your side.



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