

# Lock Gate

## Ship to Shore optimisation through accurate trailer positioning

One of the largest areas of improvement any Terminal operator can make is the efficient utilisation of equipment and labour assets, and this is no more self-evident than on the ship to shore operation.

Over the years various studies and reported statistics have concluded that the greatest potential for improving container crane performance lies in reducing the time it takes in container positioning. In fact some have concluded that as much as half of a crane's cycle time is spent – or wasted – on load positioning. When it comes to positioning the spreader over the truck chassis we take a slightly more conservative view than some, but have concluded that by shaving a mere 6 secs off each ship load movement cycle the average gross moves per hour will move from 35 to over 37 moves/hr, a productivity improvement of 6%.

When you consider the capital return on investment necessary from expensive ship to shore cranes, the cost of labour gangs per crane and the potential for faster vessel turn times and berth utilisation, focusing on this area to achieve this productivity improvement, but with modest outlays will be a real bonus.

Trailer positioning systems (also known as chassis alignment systems) can provide substantial reductions in non-productive cycle time but surprisingly many Terminals don't take advantage of such systems. ITS engineers have been implementing these types of systems since 1986 and to meet the demands of the next generation of larger and faster STS cranes, ITS are pleased to announce a major new upgrade to TPS, the ITS Truck Positioning System. The ITS system has been proven in the working terminal environment and provides a strategic advantage by consistently positioning the truck at the right place at the right time, before the spreader arrives. The system prevents time wasting through shuffling the tractor whilst the STS crane operator waits for the correct trailer alignment.

TPS provides a simple to use and inexpensive solution to the problem of container/trailer positioning. Richard Lambert, Managing Director of ITS commented "Our recent updates and re-launch of this system are as a result of a study of the current TPS market. We were initially surprised to find that some of the systems were not actively used because their sophistication meant they were too difficult to set up and then maintain operational accuracy in the harsh conditions of a busy terminal. Some of the systems also distracted the truck driver or required the crane operator to input, set and re-set metrics to allow the system to function correctly". He went on to say "Our view is different, we believe the operators should be free to concentrate on the business of moving containers and that the system should be simple, reliable, maintainable by the on-site staff and automatic in every way".

Allan Jones, Head of Business Development at ITS added "With ever increasing vessel sizes and crane height, productivity of moves over the quay is of greater concern for terminal operators, which is driving a growing need for this type of system. Increasing pressures on the terminal staff to improve productivity means you don't have the luxury of tweaking and constantly adjusting the systems. They should just work, and continue to work reliably with minimal intervention. As part of our upgrade we decided to continue with the well-proven reliability our system offers, and ensure the system was easy to maintain and simple to use.

"Our focus was to modernise the functionality for dual container handling and the utilisation of green low energy technology. This allows us to provide TPS at a much lower cost than most other systems in the market and make it very easy to justify the ROI business case"

TPS is a simple, rapid and effective method of positioning single and multiple trailers for truck and crane transactions. No intervention from the crane or truck driver is required and the system is self-starting from power

"Our recent updates and re-launch of this system are as a result of a study of the current TPS market"

**Richard Lambert, Managing Director of ITS**

on. The system accurately positions trailer chassis under the quay crane for load & discharge, by stopping the container in the correct position for the spreader for ship load and the chassis in correct position for the container for ship discharge.

TPS has been built to deliver positioning accuracy but with a very low total cost of ownership. As well as being easy to install and maintain, there is no requirement for additional equipment on the truck and because the system is so simple to operate there is no need for driver training. **PEM**

