

Container crane simulators



The cabin begins to shake when the container is lifted from the hold. With another five minutes to go, the learner wants to perform as efficiently as possible. While he is manoeuvring backwards, he hoists the container at the same time. He estimates that there must still be a two-metre clearance. But there is not! A very loud noise sounds in the cabin as the container touches the side of the ship and falls from the spreader. A considerable miscalculation. A 16-ton container has fallen between the crane rails and close to a straddle carrier. This will result in a damage report and a firm reprimand!

The crane simulators are the most popular simulators of the STC-Group. With neatly integrated projections, a terminal for the loading and offloading of containers is

simulated. During the simulation, the learner sits in a real cabin and carries out various instructions while he is in contact with the lecturer who follows him by means of a camera and monitor.

Advantages

The STC-Group offers simulations of a container crane, top crane, bulk crane and offshore crane. Working with these simulators offers great advantages for practising on a real crane on location. First of all, loading and unloading at the terminal continues day in and day out, due to which few cranes are available for training purposes. Moreover, simulator training is considerably cheaper. Another advantage is that mistakes that the learner may make do not lead to negative consequences. The cabin of the simulator is provided with a motion



base to approximate to reality. If the load of the crane comes into contact with a pile of containers during the exercise, it will be clearly audible and perceptible in the cabin, but real damage is not caused.

Unique

The crane simulator of the STC-Group is unique. Nowhere else in the world a similar advanced crane simulator is used. The difference with other simulators lies in the innovative projection combined with the moving cabin that the STC-Group itself has designed. The motion base ensures that the cabin can move and tilt in all directions. By using five projectors and a hanging cabin, the learner has no problem with the beam that usually obscures the view from below with simulators with a motion base. Training in the cabin in this simulated situation is like real working.

The course

A rotation system with four learners is used. The lecture material for working on the bridge crane is based on actual practice and developed by people with ample experience on the crane. Before a simulation is started, the learner receives a briefing and an instruction, for instance to load a number of containers within a strict time schedule. The instructor assesses the learner both on accuracy and on the time required to carry out the instruction. The actions of the learner are filmed by a camera system to be evaluated afterwards. Compared to training on the job, the advantage is that the lecturer need not intervene when something threatens to go wrong. It gives the learner the possibility to correct it himself. He is sitting alone in the cabin during the simulation, and communication with the lecturer takes place by radio. After completion, they watch the visuals together and the debriefing follows. Besides the practical part, attention is paid to theory, which includes subjects like ergonomics, safety and inspections.

Assessments

For advanced learners, special assessments with more complex scenarios can be compiled. Think of simulations in which a container crane and two straddle carriers are linked together and a work team performs a combined operation. The whole cycle of offloading a ship and loading a transport vehicle can be simulated in this way. During the assessments, various factors that play a role during the real work, like weather conditions such as mist, rain or strong wind, can be introduced. Variations in the weight of containers or the pressure at the terminal are factors that can also be included. These assessments are popular especially with industries that want to let their personnel experience how they can improve their performance. Furthermore, assessments are used to determine at the beginning of the training of young crane masters whether they can be trained in a proper and quick manner. Not everyone has the eye-hand coordination required to practise this difficult career. It is best to find out before starting a period of expensive training, to avoid disappointment on both sides.

Further information

For further information about this and other simulators, you can contact STC B.V. STC B.V. is a subsidiary division of the STC-Group and responsible for non-subsidised activities. STC B.V. provides standard courses as well as courses that are tailor-made for your industry. Included in STC B.V. are the contract education division of the Shipping and Transport College, Maritime Simulation Rotterdam B.V. (MSR), Dynamar Consultancy B.V. and the International Maritime Transport Academy (IMTA).

STC B.V. is situated at the main location of the STC-Group:
Lloydstraat 300, 3024 EA Rotterdam, The Netherlands.
Telephone: +31 10 44 86 000. E-mail: info.co@stc-r.nl