

Bulk crane simulator



The driver on the bulk crane is racing against the clock. He is transferring artificial fertiliser from the hold of a sea ship to an inland navigation ship, and both ships threaten to run behind schedule. The holder is moving to and for routinely, but working fast must not lead to spilling or excessive blowing, and the hold of the inland navigation ship must be loaded correctly.

The crane simulators are the most popular simulators of the STC-Group. With neatly integrated projections, a situation for transshipment of bulk goods 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. For example, the loud droning of a heavy holder against the edge of the coaming will resound in the head of the learner for some time, but cause no damage to a real ship. The cabin of the simulator is provided with a motion base to approximate to reality. If the holder of



the crane comes into contact with the double bottom of the hold during the exercise, it will be clearly audible and perceptible in the cabin, but real damage – that in reality could lead to penetration of the bottom – is not caused.

Unique

The crane simulator of the STC-Group is unique. Nowhere else in the world a similar advanced bulk 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

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 offload a sea ship according to a given plan within a strict time schedule. The instructor assesses the learner on accuracy and 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. 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. 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).

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