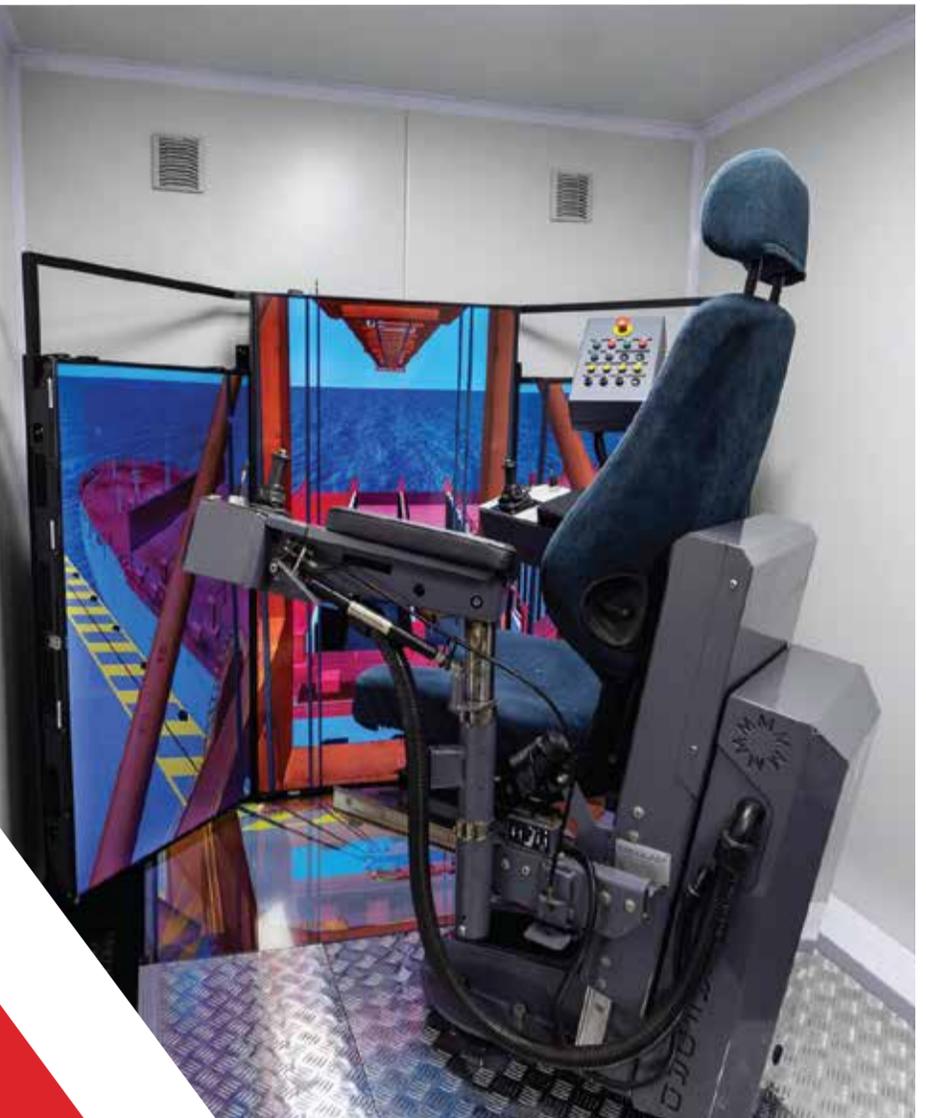


## Ship-to-Shore Crane Simulator

Part of the Maritime  
Simulator Portfolio



### **Better training tools, better quayside and terminal personnel.**

TMI Simulation Solutions began innovating and developing technology Maritime Simulators in 2016, when we collaborated with Transnet National Port Authority (TNPA) to enhance the training for port workers in the different business units, namely, TNPA, Transnet Port Terminals (TPT) and the wider commercial Maritime logistics industry. This collaboration led to the development of a Logistics Supply Chain Simulator (LSCSim) for Transnet Maritime School of Excellence.

Since 2019, we have been prototyping Heavy Lifting Machinery Simulators for Quayside and Terminal operations. Our goal is to have a holistic virtual port environment comprising of multiple marine and heavy lifting machinery simulators interfacing through the Logistics Supply Chain Simulator to perform all the real-world operations in a virtual world, to improve efficiency, performance and reduce delays and bottlenecks in the real port environment.

Maritime Simulators catalogue includes the Ship-to-Shore Crane simulator (STSSim). This simulator integrates a suite of tools used for training and assessing quayside crane operators to perform exercises to improve their skills and enhance performance and productivity under varying weather conditions and different cargo and vessel types. The STSSim has various progressive training modules that gradually develops the skills of novice and experienced operators on product knowledge, cargo handling and develop performance benchmarks.

Since innovation, simulation and training are our specialties, we offer you a comprehensive training solution with an integrated learner management system that optimises and evolves your current training and assessment processes, regardless your industry and sector.

Our Maritime Simulator Portfolio covers a range of training:

- Quayside and Terminal Heavy Lifting Machinery
- Through a partnership model we offer Ship Handling, Tug, Engine Room, ARPA, ECDIS and Navigational training
- Interconnectivity with our LSCSim for port operations, planning and management

# SCHEDULE

## LEARN

## PRACTICE

## ASSESS

## EXPERIENCE

- Our immersive simulators provide real world skills to operate heavy lifting equipment safely and efficiently.
- This is the perfect simulator to prepare the trainees for the unexpected, so they are acquainted with operational challenges in a safe environment.
- Real efficiencies are taught by recording key metrics to teach productive and economic machine use.
- Trainees can practice without the consequences of wear and tear on the real machinery.
- The equipment training pack offers a self-guiding, progressive learning programme.
- All the trainee's activities, progress and mistakes are captured to generate a report that can be easily reviewed by trainers and programme managers.
- The curriculum is dynamically determined to adjust to the earning pace of the learner.
- Customizable scenarios are built to develop challenging courses to train under specific situations.



### Features, Functions & Specifications

Fully integrated OEM controls	Controls from any OEM can be integrated, including seat
Image Generation	4 Screen setup: 65" Centre and bottom screen 55" side screens
Training Scenarios	Controls familiarization, Loading / unloading, Above / Below deck, Various container types, Hatch Covers, following work queues. Operating in adverse weather conditions. Working with bottlenecks on the quayside and terminal.
Spreader Configuration	20', 40', 45', Tandem 20' with twist locks and flippers
Dynamics	Accurate cable dynamics enabling operator to experience realistic container movements due to swaying and wind gusts.
Environment	Different vessel layouts, up to post panamax, day / night cycle, weather conditions (wind, fog, rain)
Mobile Version	Containerized solution available
Portfolio of Evidence	All training sessions and assessments are stored in a database, and trainers can access and print portfolio of evidence. Recording of session can be viewed for debriefing.
Virtual Instructor & automatic assessment	Virtual instructor gives instructions and assesses the operator continuously, for autonomous learning.

### STSSim a Comprehensive Training Solution

- TMI's maritime simulator portfolio are customizable to incorporate local and international safety and security regulations, to promote reality based training.
- The maritime simulators are adapted to the skills requirements, distribution systems, ship traffic control, multiple weather conditions, predictive and emergency scenario analysis. Several lessons and multiple static and dynamic hazards offer a wide age range of scenarios for trainees to experience the thrill of the operations.
- The simulator's design and choice of features and functions are specific to the training requirements and objectives to replicate the operational environment.
- TMI's STS crane simulator's dynamics, the real equipment dimensions, training specifications, handling, and performance qualities allow a smooth transition from the simulator to practical training on the real crane.
- The visual display exposes the trainee to specific conditions creating high-fidelity immersive environments.
- On screen instructions and automated reporting allow smooth operation and assessment to fast-track the trainee's progress.
- The maintenance plans offered always contemplate preferential service rates.