The K-Sim Engine Wärtsilä 12RT-Flex 82 Container L-11-1 model simulates a Panamax container ship of 4800 TEU, with a propulsion machinery based on the Wärtsilä RT-Flex82C, low speed. It has a 12 cylinder configuration, 2-stroke, turbocharged, reversible diesel engine. The model is based on real engine data which makes the dynamic behavior of the simulator close to the response of a real engine.

The electrical power plant includes three (3) diesel generators, one shaft generator, a steam turbine generator, and one emergency generator. The steam plant includes an oil fired boiler as well as an exhaust boiler. Control room operator station and panels and bridge and steering panels are included.

Training objectives
The K-Sim Engine Wärtsilä 12RT-Flex 82 Container L11-1 model is designed to be a valuable tool in the basic and advanced training of marine engineers. The training objectives are to train junior engineers in basic engine room operations, senior engineers in emergency operations and trouble shooting, and to train senior and chief engineers in optimal operation, fuel economy and energy conservation. This is achieved by controlled training, leading to better understanding of the total plant operation, as a result of realistic simulation of a real engine room.

Compliant with industry requirements
Kongsberg Digital simulator models exceed requirements in the STCW convention, Regulation 1/12 and fulfill DNV GL’s standard DNVGL-ST-0033 for Maritime Simulator Systems.
MODEL MAIN SPECIFICATIONS

High fidelity engine room systems include:

- Sea & LT/HT fresh water systems
- FW generator
- Electrical power plant, Incl. diesel, shaft and turbo generators
- Start & service air compressors,
  incl. compressor intermediate coolers and emergency compressor
- Electrical power and pump management
- Manual and automatic
- Battery charging system
- Steam plant, incl. oil fired boiler and exhaust boiler
- Diesel/heavy fuel oil systems Incl. tanks, separators, viscosimeters
- Lubricating oil systems and Lubricating oil separators
- Common rail system, incl. servo oil and control oil system.
- Stern tube systems
- Propeller servo LO system
- Thermal oil heating system
- CPP bow thruster
- Steering gear/autopilot, incl. dbl. acting IMO type steering gear & ship course control
- Turbo charger systems
- Main engine control system, incl. bridge, ECR and local control
- Main engine control air system
- FO high pressure system, fuel leak detector and fuel distributor priming valves
- Cylinder indication diagrams, sankey-, load- and generator phasor diagram
- Piston ring monitoring
- ME bearing system
- Air ventilation system
- Bilge wells & bilge separator
- Air conditioning, sewage and incinerator plants
- Cathodic protection system

Note: Specifications subject to change without any further notice.