K-Sim Engine
MaK 8M43C Container M11

The K-Sim Engine MaK Container M11 model is based on a medium speed Engine Room configuration from a modern container feeder with one MaK 8M43C engine connected to a controllable pitch propeller. The model has 1x8000kW main engine and 1x500kw bow thruster. The control and automation systems include sophisticated power management, pump control and propulsion control. The main object for the simulator is to cover the operation and system understanding of the configuration one (1) medium speed main engine geared down and connected to a controllable pitch propeller including shaft generator, with electrical transmission to a switch board. The electrical power plant includes, in addition to the shaft generator, 2 diesel generators and one emergency generator. Control room operator panels as well as bridge and steering panels are included. In addition to the graphical process mimics representing the engine room systems, a Walkthrough Virtual Engine Room application is included. The VR application enable the students to walk around in the engine room in a virtual world and operate the machinery systems locally.

Training objectives
The K-Sim Engine MaK 8M43C Container M11 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:

- Propulsion Plant: 1 MaK medium speed main engine
- Gear system: Single shaft CPP
- Integrated automation System
- Alarm and Safety Warning System
- Control and Power Management System
- Propulsion Control System
- Seawater auxiliary Cooling System
- Exhaust System
- Lubrication oil Filling, Transfer and Purification Systems
- Emergency generator
- Diesel generator Sets and Support Systems
- Shaft generator and Support Systems
- Electric Power Supply Conversion Equipment
- Switchboards, distribution, and Panels for Electric Power and Lighting
- Refrigeration System
- Fire main (Seawater System)
- Ballast system
- Freshwater System/Freshwater Production System
- Potable Water System
- Freshwater auxiliary Cooling Systems
- Fuel Systems including Separator systems
- Compressed air Systems
- Steam Plant incl. oil fired boiler
- Bilge separator system
- Bow Thruster
- Steering gear
- Fire detection System
- Water Mist System
- Deck Machinery
- Sewage Treatment

Note: Specifications subject to change without any further notice.