The K-Sim Engine MAN B&W 5L90MC VLCC 11-V model simulates a very large crude carrier with a MAN B&W slow speed turbo charged diesel engine as propulsion unit modelled with fixed and controllable propeller. The main engine model respond dynamically to variations in operation and conditions of the ship model, and the ship model have mutual responses to the main engine model.

The model is based on real engine data that makes the dynamic behaviour of the simulator close to real engine response. The electrical plant includes 2 diesel generators, one turbo generator, one shaft generator/motor, and one 180 kW emergency generator. The steam plant includes a D-type steam boiler, exhaust boiler, 4 cargo turbines, ballast turbine and condensing and feed water systems. Control room operator station-, bridge- and steering panels are included.

Training objectives
The K-Sim Engine MAN B&W 5L90MC VLCC 11-V 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.

KONGSBERG ENGINE ROOM SIMULATORS
Our range of K-SIM Engine Room Simulators provide realistic, hands-on experience in a ship-like environment. Systems include vital components, such as main engine remote control, engine-room local panels, controllers, engine telegraph, alarm systems, power supply switchboards, engine sounds etc.

We have an extensive model library of different propulsion plants and engines types.

Our library includes models of diesel engines such as MAN B&W, Wärtsilä, Sulzer, Pielstick, MaK and MTU as well as gas turbine, diesel electric, water jet and steam propulsion plants.

Our systems can be easily networked with our full ship's bridge simulator for total ship training.

KONGSBERG

Kongssberg.com
MODEL MAIN SPECIFICATIONS

High fidelity engine room systems include:

- Sea & LT/HT fresh water systems incl. FW generator
- Electrical power plant incl. diesel-, shaft- generator 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. D-type oil fired boiler and exhaust boiler
- Diesel/heavy fuel oil systems incl. tanks, separators, viscometers
- Lubricating oil systems incl. separator
- Stern tube systems
- Propeller servo LO system
- CPP bow thruster
- Steering gear/autopilot
- Turbo charger systems
- Main engine control system incl. bridge, ECR and local control
- Main engine control air system
- FO high pressure system incl. VIT system,
- Cylinder indication diagrams
- Piston ring monitoring
- Main Engine Load Diagram and Main Engine bearing system
- Air ventilation system and air cooling plant
- Bilge wells & bilge separator
- Sewage treatment plant Incinerator plant ballast system
- Refrigeration system
- Ship loading system
- CO2 scavenging air box fire extinguishsystem
- Remote CO2 release, emergency stops and quick release valves
- Emission Control System (water emulsification & Pmax-reduction/ SCR/ Scrubbing

Note: Specifications subject to change without any further notice.