



Model Description

The ERS-L11 MAN B&W 5L90MC-VLCC 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 model is based on real engine data that make the dynamic behaviour of the simulator close to real engine response.

The electrical plant includes two 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, four cargo turbines, ballast turbine and condensing and feed water systems.

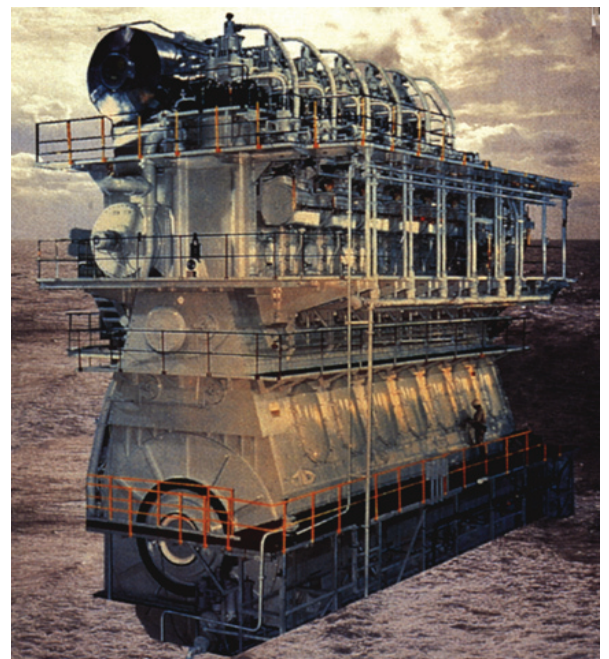
Control room operator station and panels and bridge and steering panels are included.

Main Engine Data

Type	MAN B&W 5L90MC
Cylinder bore.	90 cm
Piston stroke	290 cm
No. of cylinders	5
No. of air coolers	2
No. of turbochargers	2
MCR	17400 kW
Corresp. Eng. speed	76 rpm
Mean indicated press.	13.0 Bar
Scavenge air press.	2.1 Bar
Turbocharger speed	8000 rpm
No. of propeller blades	5
Propeller pitch	1.2 P/D
Spec. fuel consumption	168 g/kwh
Fuel	DO/ HFO 700 cSt

Vessel's Main Particulars

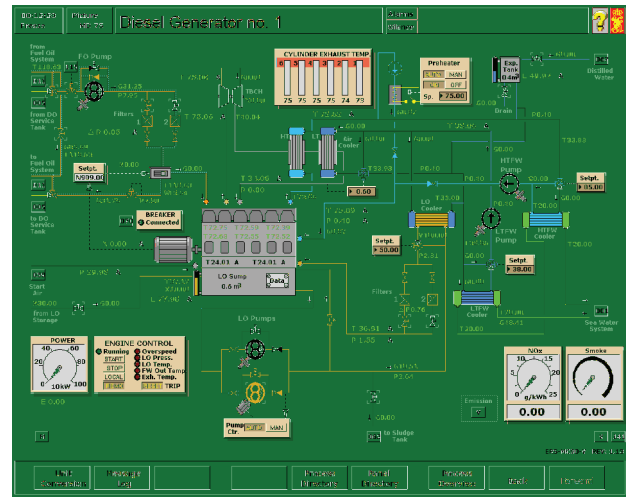
Length overall	305.00 m
Length between p.	295.00 m
Breadth moulded	47.00 m
Depth moulded	30.40 m
Summer Draught	19.07 m
CB	0.801
Dead-weight	187997 tons
Speed	14 knots



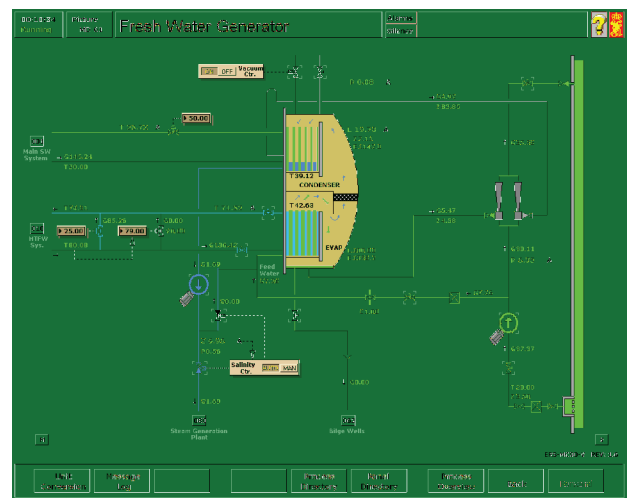
Model main specifications

The following dynamic models and features are included:

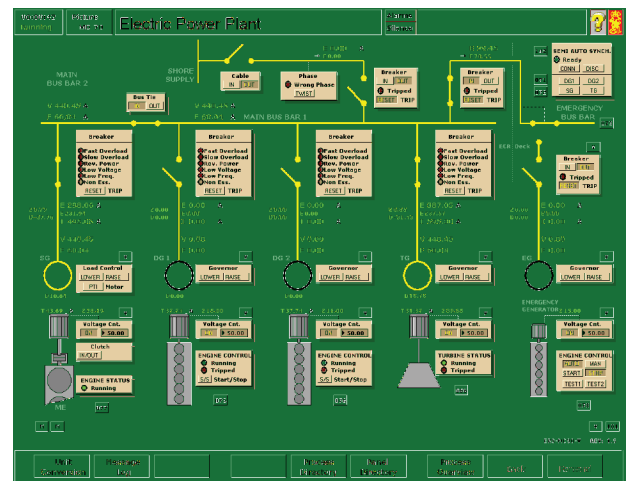
- Sea & LT/HT fresh water systems
Incl. FW generator
- Electrical power plant
Incl. diesel-, shaft- generator and turbo generators
- Start & service air compressors
Incl. compressor intermediate coolers & emergency compressor
- Electrical power and pump management
Manual and automatic
- Battery charging system
- Steam plant
Incl. D-type oil fired boiler and exhaust boiler
- Diesel/heavy fuel oil systems
Incl. tanks, separators, viscosimeters
- Lubricating oil systems
Incl. separator
- Stern tube systems
- Propeller servo LO system
- CPP bow thruster
- Steering gear/autopilot
Incl. double 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
Incl. VIT system,
- Cylinder indication diagrams
- Piston ring monitoring
- Main Engine Load Diagram
- Main Engine bearing system
- Air ventilation system
- Bilge wells & bilge separator
- Air conditioning plant
- Sewage treatment plant
- Incinerator plant
- Ballast system
- Refrigeration system
- Ship loading system
- CO2 scavenging air box fire extinguish system
- Remote CO2 release, emergency stops & quick release valves
- Emission Control System (water emulsification & Pmax-reduction/ SCR/ Scrubbing)



Picture MD75 Diesel Generator no. 1



Picture MD61 Fresh Water Generator



Picture MD70 Electric Power Plant



STCW95 sets performance standards for simulators used for training and assessment of competence. Any simulator need to meet the STCW A-I/12



The model received DNV Statement of compliance based on Standard for Certification of Maritime Simulators No. 2.14 October 2007.

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