

K-SIM ENGINE



KONGSBERG



K-SIM ENGINE DE AC/AC CRUISE VESSEL DE22-III

The K-Sim Engine DE22 AC/AC Cruise model is based on a large cruise vessel with two synchronous propulsion motors, each rated 14MW. Each propulsion motor has two separate three phase winding which enables “half motor” operation. The vessel is fitted with two direct coupled fixed pitch propellers.

Kongsberg Engine Room Simulators

Our 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, certified by the engine manufacturer as exact simulations.

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.

Model Description

The electrical power plant consists of a 6.6kV system, fed by 4 medium speed diesel generators each rated 13,9 MVA. and two 440V high speed diesel emergency generators each rated 750 MVA.

The control and automation systems include sophisticated power management, pump control and propulsion control systems. The steam plant includes two large oil fired boilers and feed water system. Control room operator panels as well as bridge and steering panels are included.

Fulfilling the requirements

The K-Sim Engine DE22 AC/AC Cruise simulator model exceeds requirements in the STCW convention, Regulation 1/12 and fulfills DNV GL’s standard DNVGL-ST-033:2014-08 Maritime Simulator Systems.

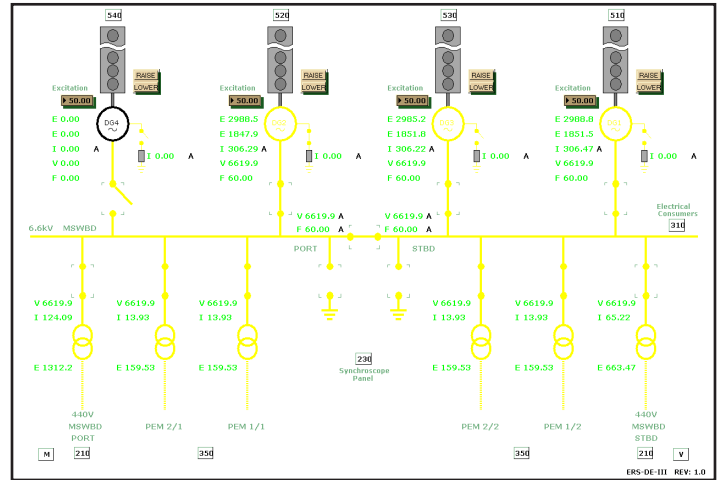
MODEL FEATURES & DETAILS

Main propulsion data

Diesel generators	4x 6.6kV/13.9MVA
Diesel gen. speed	514rpm
Fuel consumption	188g/kWh at MCR
Emergency generators	2x 440V/750kVA
Fuel consumption	228g/kWh at MCR
Propulsion motors	2.2kV/14MW
Bow thrusters	2x 6.6kV/1700kW
Stern thrusters	2x 6.6kV/1400kW
Propeller speed	145 RPM
No. of rudders	2

Vessel's main particulars

Length overall	261 m
Breadth moulded	33,6 m
Draught	7,95 m
Displacement	12000 ton
Tonnage	77000GRT
Speed	18,5 knots



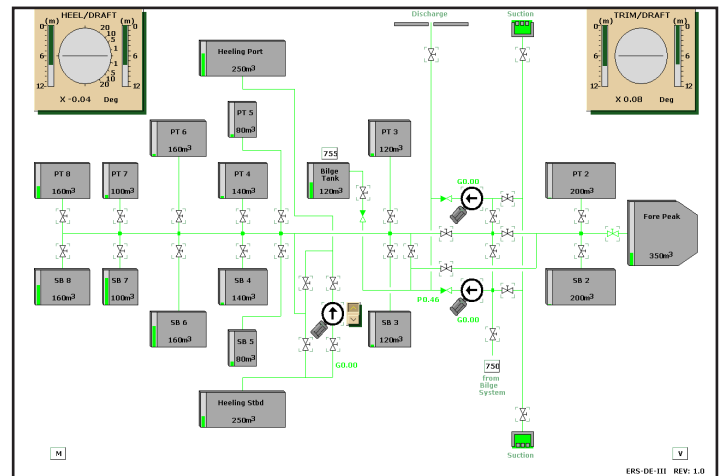
Electrical Power Plant

MODEL MAIN SPECIFICATIONS

The following simulated models are included:

- Sea & LT/HT fresh water systems
Incl. FW generators
- Electrical Power plant
Incl. 6.6kV, 440V & 220V AC/DC switchboards
- Start and service air compressors
- Steam Plant
- Diesel and heavy fuel oil systems
Incl. bunker, settling and service tanks, separators
- Fuel oil supply systems
Incl. viscometers
- Lubricating oil systems
Incl. LO purifier
- Stern tube systems
Incl. double acting IMO type steering gear. Autopilot
- Propulsion control system
Incl. Bridge, ECR and local control
- Propulsion power drive system
Incl. Transformers, freq. converters and excitation
- Propulsion motor cooling system
Incl. Sea & FW system

- Main bilge system
- Bilge & sludge system
Incl. Bilge separator
- Ballast system
Incl. Heeling system
- Fire main & sprinkler system



Ballast/heeling system

Specifications subject to change without any further notice.

K-Sim Engine - Diesel Electric AC-AC Cruise Vessel DE22-III
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