

K-SIM ENGINE



KONGSBERG



K-SIM DE DUAL FUEL LNG CARRIER - DEDF21

The K-Sim Engine DEDF 21 LNG carrier model is based on a Dual Fuel Diesel Electric (DFDE) Engine Room configuration from a modern liquefied natural gas (LNG) carrier with two synchronous propulsion motors, geared down to one propeller. Each propulsion motor has two separate three phase winding which enables “half motor” operation. The vessel is fitted with one fixed pitch propeller.

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 power plant consists of a 6.6kV system, fed by 4 Wärtsilä Dual Fuel medium speed generators. The engines can operate on LNG, MDO and HFO.

The control and automation systems include sophisticated power management, gas 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 DEDF 21 LNG carrier 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.

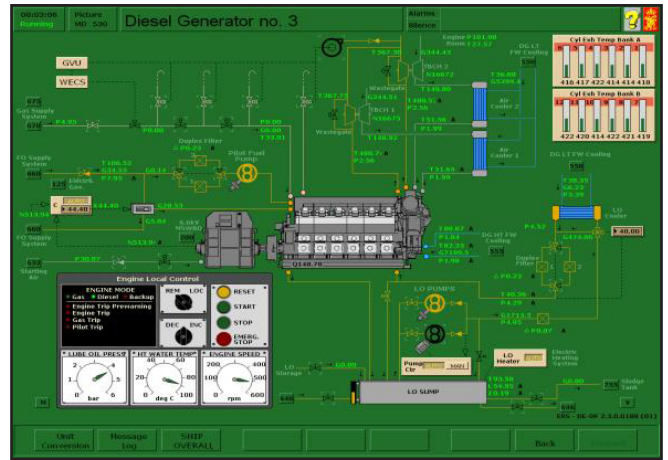
MODEL FEATURES & DETAILS

Main propulsion data

Dual Fuel generators	3x 6.6kV 11.3MW 1x 6.6kV 5,6 MW
Dual Fuel gen. speed	514rpm
Fuel consumption	FO : 186g/kWh at MCR
Gas Consumption	DG 1-3 2570 sm3/h DG 4 1285 sm3/h
Emergency generators	2x 440V/750kVA
Propulsion motors	2.2kV/16MW
Bow thruster	1x 6.6kV/1700kW
Propeller speed	0-82 RPM
No. of rudders	1

Vessel's main particulars

Length overall	285.4 m
Breadth moulded	43,4 m
Draught	11,35 m
Tonnage	97561 GRT
Speed	19.7 knots



Dual Fuel Diesel generator

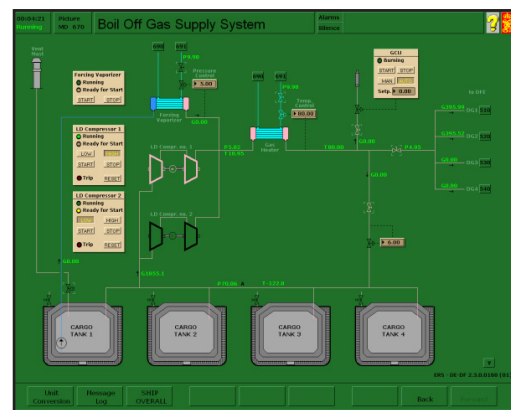
MODEL MAIN SPECIFICATIONS

The following simulated models are included:

- Sea & LT/HT fresh water systems
- Incl. FW generators*
- Electrical Power plant
- Incl. 6.6kV, 440V & 220V switchboards*
- Start and service air compressors
- Steam Plant
- Boil off gas system
- Dual Fuel engines
- Gas management system
- Power management system
- 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
- Steering gear/autopilot 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
- Deck Machinery



Boil Off Gas Supply system

Specifications subject to change without any further notice.