K-Sim® Engine

KONGSBERG

KONGSBERG Engine Room Simulators

K-Sim Engine Semi-Submersible Drilling Rig - DE88

The K-Sim Engine Semi-Submersible Drilling Rig DE88 model is based on a diesel-electric semi-submersible drilling rig. The Model contains 8 Wärtsilä medium-speed engines, each rated 5100 kW for power generation. The propulsion system is diesel-electric, and the engines are fitted with 11 kV generators supplying eight Azimuth thrusters, each rated 4000 kW.

The control and automation systems include sophisticated power management, pump control, and propulsion control. The main objective of the simulator is to cover the operation, system understanding, and advantages of a diesel-electric plant. It also focuses on decision training and responding to abnormal and emergency situations that may occur on this kind of offshore plant. Control room operator panels and steering panels are included.

Training objectives

The K-Sim Engine Semi-Submersible Drilling Rig DE88 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 a better understanding of the total plant operation as a result of a realistic simulation of a real engine room.

Compliant with industry requirements

KONGSBERG's simulator models exceed requirements in the STCW convention, Regulation 1/12 and fulfil DNV's standard DNV-ST-0033 for Maritime Simulator Systems.

KONGSBERG ENGINE ROOM SIMULATORS

Our range of K-SIM Engine Room Simulators provide realistic, handson 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. We have Dual Fuel LNG engines & Methanol engine 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 Features and Details

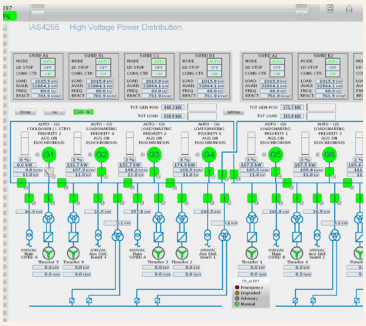
Rig Type	Ultra deep water semi-submersible	
Main Engines	8 x Wärtsilä medium speed	
Propulsion type	8 x Azimuth / 4000kW	
Emergency generator	1 x Diesel generator set / 2000kW	
Dynamic Positioning system	DP2	
Work area	up to 3000m water depth	
Length overall	117,0	m
Beam overall	78,0	m
Draught (operational)	20,5	m
Draught (transit)	9,7	m
Draught (survival)	16,0	m
Tonnage	37750	GRT
Transit speed	10	knots

Model Main Specifications

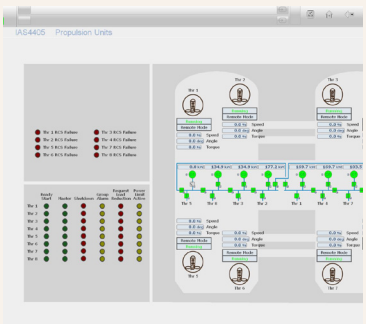
High fidelity engine room systems include:

- Power generation
  - 8 Wärtsilä Medium Speed Main Engines
- Main Generators
  - 8 brushless A/C synchronous Generators
- Integrated Automation System
  - Alarm and Safety Warning System
  - Control and Power Management system
- Thruster Control System
- Seawater Cooling System
- Lubrication Oil System
- Emergency Generator
- Diesel Generator Sets and Support Systems
- Electric Power Supply Conversion Equipment
- Switchboards, Distribution, and Panels for Electric Power and Lighting
- Fire Detection, Water Mist
- Fresh Water Cooling System
- Fuel Systems
- Fuel and Lubricant Handling and Storage Systems
- Compressed Air Systems
- Ballast system

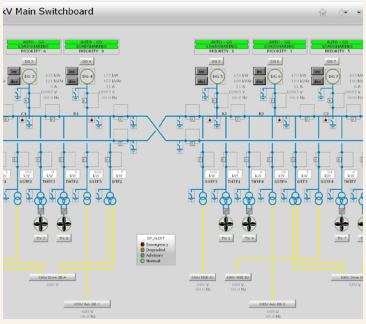
Note: Specifications subject to change without notice



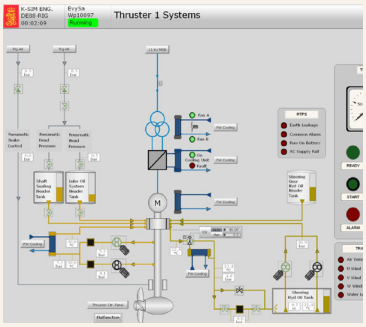
IAS High Voltage Power Distribution



IAS Propulsion Units



Main Switchboard



Thruster System

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