

# K-SIM ENGINE



KONGSBERG



## K-SIM ENGINE PIELSTICK 10PC4 M22 FERRY

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The propulsion machinery is based on two Pielstick 10 PC 4.2, medium speed, 10 cylinder/V-configuration, 4-stroke, turbocharged, non-reversible diesel engines. The main engine models respond dynamically to variations in operation and conditions of the ship model, and the ship models have mutual responses to the main engine models.

### **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**

Each main engine is coupled to a propeller shaft with controllable pitch propeller, via a reduction gear and an air-operated clutch. Also a shaft generator is attached to each reduction gear. The propulsion plant may be operated in combinator/ split/ economy/ shaft generator mode.

The electrical power plant includes two 600 kW diesel engine driven generators, two 600 kW/synchronous shaft driven generators and one 180 kW emergency generator. The engines can operate on Heavy Fuel Oil and Marine Diesel Oil.

### **Fulfilling the requirements**

The K-Sim Engine Pielstick 10pc4 m22 Ferry simulator model exceed 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

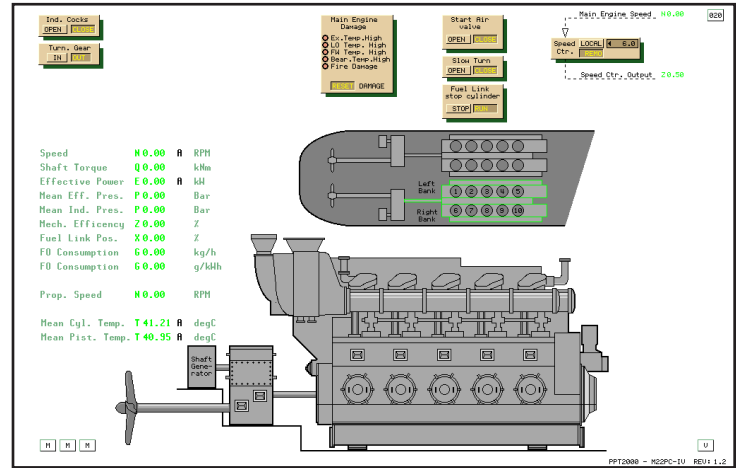
## Main engine data

Type	Pielstick PC 4.2
Cylinder bore/ piston stroke	570/620 mm
No. of cylinders	2x5 V-config.
No. of air coolers	2
No. of turbochargers	2
CSR	10930 kW
Corresp. Eng. speed	400 RPM
Mean indicated press.	23.0 Bar
Gear	1:3
Propeller shaft RPM	133 RPM
Propeller diameter	4.6 m
Spec. fuel consumption-CSR	183 g/kWh
Fuel	DO/HFO 700 cSt

Summer Draught	5,5 m
Displacement	12000 ton
Dead-weight	3400 ton
Speed	23 knots

## Vessel's main particulars

Length overall	160 m
Length between p.	145 m
Breadth moulded	24 m



# MODEL MAIN SPECIFICATIONS

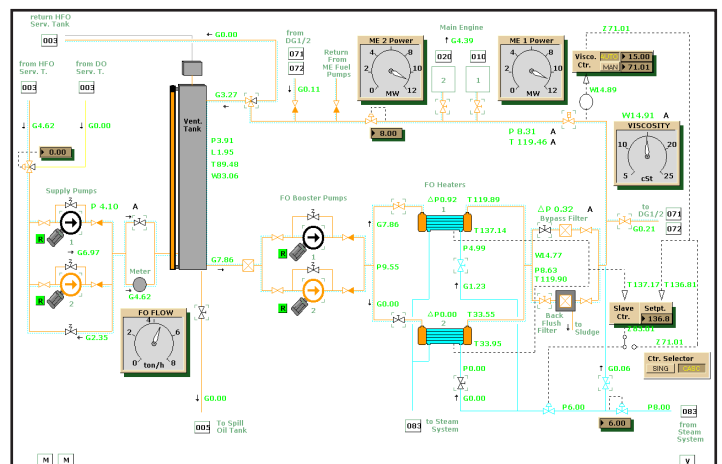
## High fidelity engine room systems include:

- Sea & fresh water systems
- Incl. FW generator*
- Ballast tanks
- Electrical Power Plant
- Incl. diesel-and shaft generator*
- Start & service air compressors
- Incl. control air.*

- Steam generation plant
- Incl. oil fired and exhaust boilers*
- Diesel/heavy fuel oil systems
- Incl. tanks, separators, viscometers*
- Lubricating oil systems
- Incl. separator*

- Stern tube systems
- Reduction gears and systems
- Incl. Clutches for propeller shaft and shaft generators*
- Propeller servo LO systems
- Steering gear/autopilot
- Incl. double acting IMO type steering gear and ship course control*
- Turbo charger systems
- Main engine control system
- Incl. bridge, ECR and local control*

- Split, Combinator, Economy, Shaft generator modes
- Bilge wells & bilge separator
- CPP stern and bow thrusters
- Refrigeration systems
- Remote CO2 release, emergency stops and quick release valves



Fuel Oil System

Specifications subject to change without any further notice.

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