K-Sim Engine
Pielstick 10PC4 M22 Ferry

The K-Sim Engine Pielstick 10PC4 M22 Ferry model simulates a ferry with a propulsion machinery based on two Pielstick 10 PC 4.2, medium speed, 10 cylinder/V-configuration, 4-stroke, turbocharged, non-reversible diesel engines. The main engine model respond dynamically to variations in operation and conditions of the ship model, and the ship model have mutual responses to the main engine model. 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.

Training objectives
The K-Sim Engine Pielstick 10PC4 M22 Ferry 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 better understanding of the total plant operation, as a result of realistic simulation of a real engine room.

Compliant with industry requirements
Kongsberg Digital simulator models exceed requirements in the STCW convention, Regulation 1/12 and fulfill DNV GL's standard DNVGL-ST-0033 for Maritime Simulator Systems.

Our range of K-SIM 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.

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 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

Datasheet version:
K-Sim Engine - Pielstick 10PC4 M22 Ferry
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Note: Specifications subject to change without any further notice.