

Neptune Engine Room Simulator

Pielstick 10PC4 M22 Ferry



Model Description

The propulsion machinery is based on two Pielstick 10 PC 4.2, medium speed, 10 cylinder/ V-configuration, 4-stroke, turbo-charged, non-reversible diesel engines.

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.

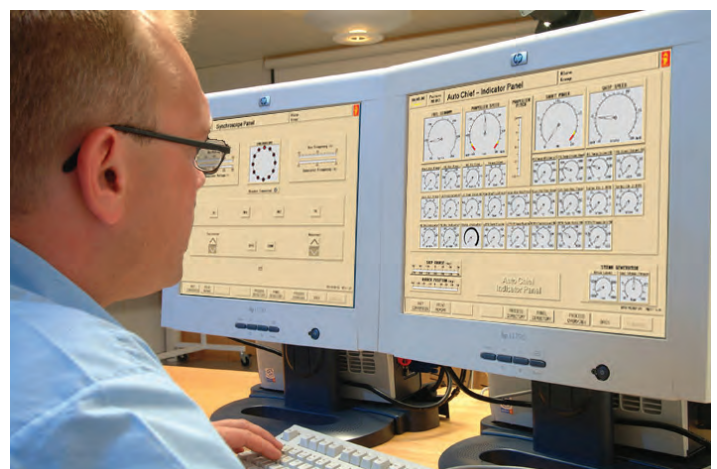
The electrical power plant includes two 600 kW diesel engine driven generators, two 600 kW/ synchronous shaft driven generators and one 180 kW emergency generator.

The engines can operate on Heavy Fuel Oil and Marine Diesel Oil.



Main Engine Data

Type	Pielstick PC4.2
Cylinder bore.	57cm
Piston stroke	620mm
No. of cylinders	2x5 V-config.
No. of air coolers	2
No. of turbochargers	2
CSR	10930kW
Corresp. Eng. speed	400 rpm
Mean indicated press.	23 bar
Gear	1:3
Propeller shaft rpm	133 rpm
Propeller diameter	4.6 m
Spec. fuel consumption	183 g/kwh
Fuel	DO/HFO 700 cSt



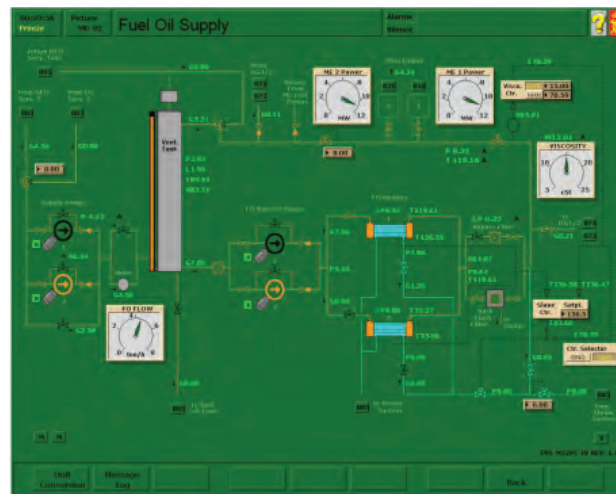
Vessel's Main Particulars

Length overall	160 m
Length between p.	145 m
Breadth moulded	24 m
Summer draught	5,5 m
Displacement	12000 tons
Deadweight	3400 tons
Speed	23 knots

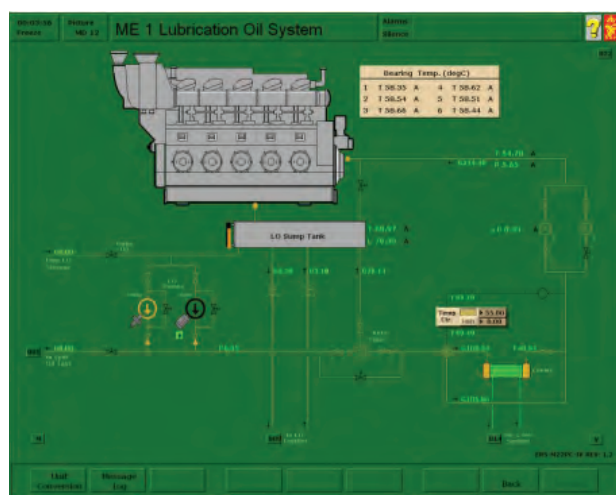
Model main specifications

The following simulated models and features are included:

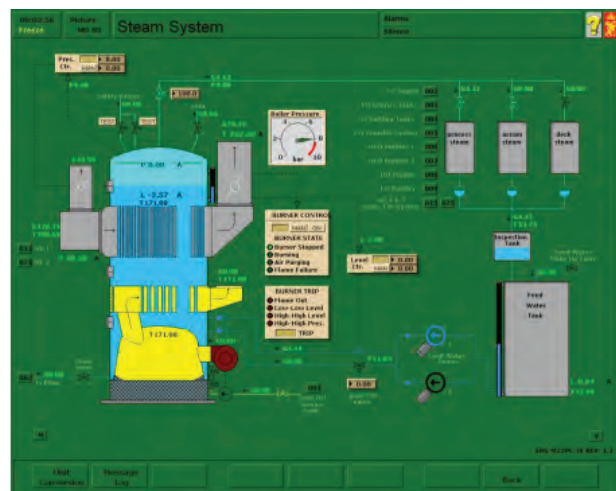
- Sea & fresh water systems
Incl. FW generator
- Ballast tanks
- Electrical power plant
Incl. diesel and shaft generators
- Start & service air compressors
Incl. control air
- Steam Generation plant
Incl. oil fired and exhaust boilers
- Diesel/heavy fuel oil systems
Incl. tanks, separators, viscosimeters
- Lubricating oil systems
Incl. separator
- Stern tube systems
- Reduction gears & systems
Incl. clutches for propeller shaft & shaft generators
- Propeller servo LO systems
- Steering gear/ autopilot
Incl. double acting IMO type steering gear & ship course control
- Turbocharger systems
- Main engine control system
Incl. bridge, ECR and local control
- Split-, Combinator-, Economy- & Shaft-generator modes
- Bilge wells & bilge separator
- CPP stern & bow thrusters
- Refrigeration systems
- Remote CO2 release, emergency stops & quick release valves



Picture MD02 Fuel Oil Supply System



Picture MD12 ME1 Lubrication Oil System



Picture MD83 Steam System



STCW95 sets performance standards for simulators used for training and assessment of competence. Any simulator need to meet the STCW A-I/12



The model received DNV Statement of compliance based on Standard for Certification of Maritime Simulators No. 2.14 October 2007.

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