



Type Approved
to STCW 95

Engine Room CBT

PC-Based Engineroom Simulators & CBT modules

Engine Room CBT is a combined simulator and multimedia training package, which extensively covers the subject of marine power plant equipment. Now in an extended version with new modules added and others upgraded, the package provides no fewer than 28 individual training modules. It has been type approved to STCW 95 and offers excellent value to marine engineering colleges & training centres. **Engine Room CBT** contains:

- | | |
|---------------------------------------------|------------------------------------------|
| § Remote control for MAN B&W LMC engine | § Reverse osmosis desalination |
| § Remote control for Sulzer RTA engines | § Steering gear – fixed delivery pump |
| § Auxiliary steam boiler | § Steering gear - variable delivery pump |
| § Biological sewage treatment plant | § S-type separator |
| § Combined oil-fired and exhaust gas boiler | § Marine pumps |
| § Controllable pitch propeller | § Fuel conditioning |
| § Marine diesel engine monitoring | § Electric power plant |
| § Diesel engine generators | § Marine compressors |
| § Diesel engines (2-stroke, 4-stroke) | § Emergency power plant |
| § Freshwater generator | § Marine heat exchangers |
| § Fuel oil treatment plant | § Rotary vane steering gear |
| § Hydrophore installation | § Marine air-conditioning system |
| § Oily water separator | § EcoStream oily water separation |
| § Refrigeration plant | § Basics of hydraulics |
- The last 3 modules are new in 2007*

The main educational tasks which can be accomplished by Engine Room CBT:

- § familiarisation with the principles of operation of auxiliary shipboard systems and equipment
- § training in marine power plant operation
- § training in emergency procedures
- § preparation for assessment of competency

Engine Room CBT's main features:

- Realistic presentation of marine power plant equipment, with control panels and system installation diagrams
- Accurate mathematical modelling of each type of plant to ensure that the simulator will react to the trainee's actions exactly as it would in real life
- Interactive training - control panels contain switches, pressure gauges, control and alarm lamps, and allow actions such as opening or shutting valves
- Sound and graphics ensure that the modules realistically portray the equipment and reflect the consequences of trainee actions
- Some modules can simulate faulty operation, something which would not be possible under real conditions

A typical module consists of four parts:

- § System description
- § Operating instructions
- § Test
- § Interactive simulator

System description

This describes the application, working principles and main components of the installation, together with different kinds of illustration (pictures, photos, diagrams etc). By clicking on the appropriate part of the installation diagram, the part name appears.

Operating instructions

This contains a step-by-step description of preparations for starting the plant, automatic and manual control functioning and stopping the plant, with graphics illustrating the consecutive phases of the plant operation.

Test

The test is intended to assess the knowledge gained by the trainee from the two first parts of the module. The trainee must give the correct answer to randomly selected questions. This enables the trainee to carry out the test more than once without having to answer the same questions. At the end of each test the trainee is given a score.

Simulator

Finally, the trainee must set the valves on the installation diagram to their proper positions and start the pump, the compressors etc. by operating the switches and buttons on the panel. This enables the trainee to put into practice the theoretical knowledge he has gained.

The following pages contain screen shots of some modules in Engine Room CBT.

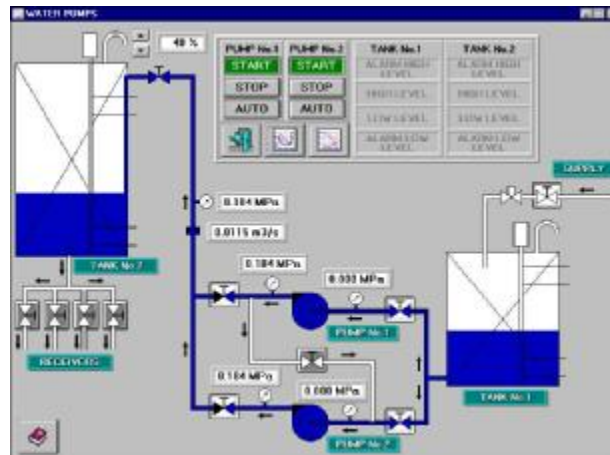
If you would like further information, please contact:

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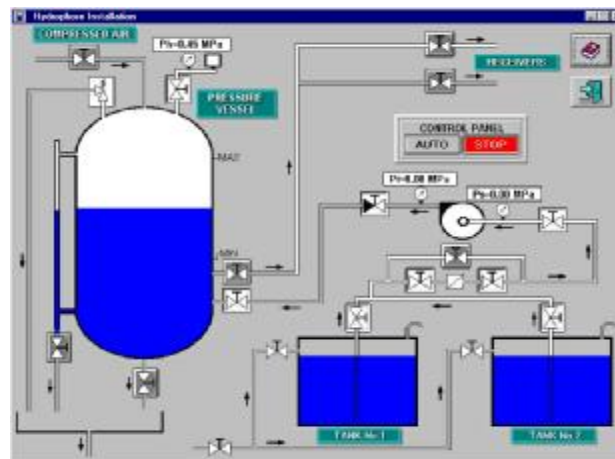
mdunstall@pcmaritime.co.uk

<http://www.pcmaritime.co.uk>

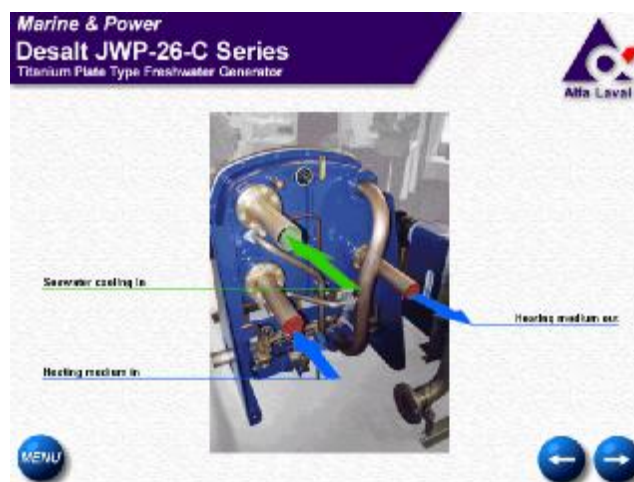
MARINE PUMPS



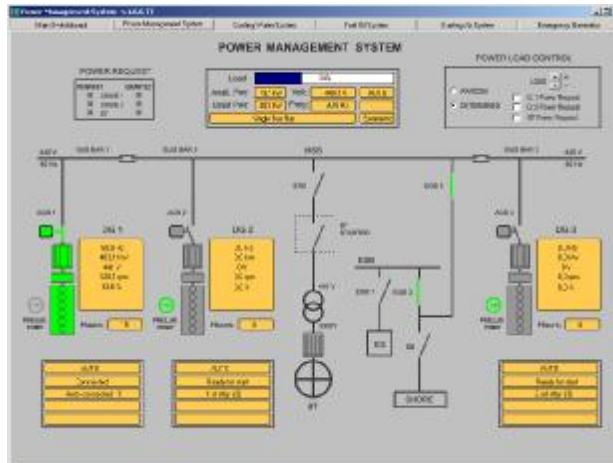
HYDROPHORE INSTALLATION



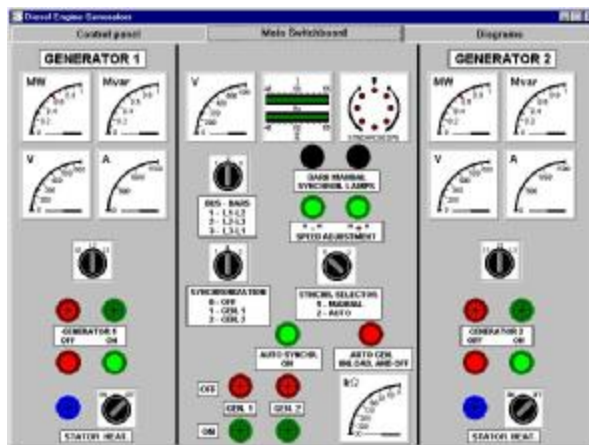
FRESHWATER GENERATOR



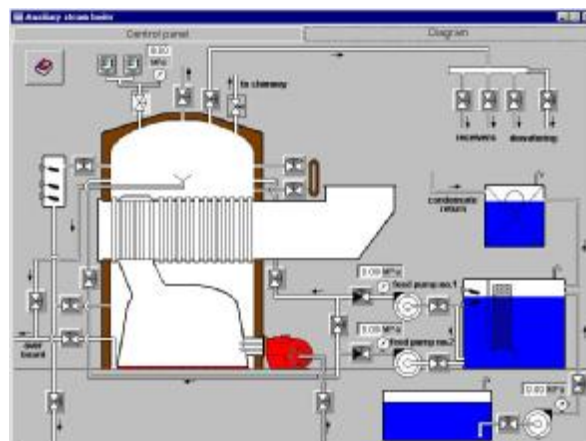
ELECTRIC POWER PLANT



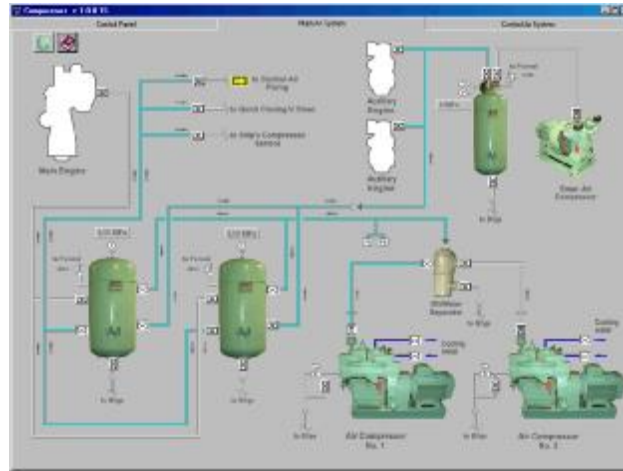
DIESEL ENGINE GENERATORS



AUXILIARY STEAM BOILER



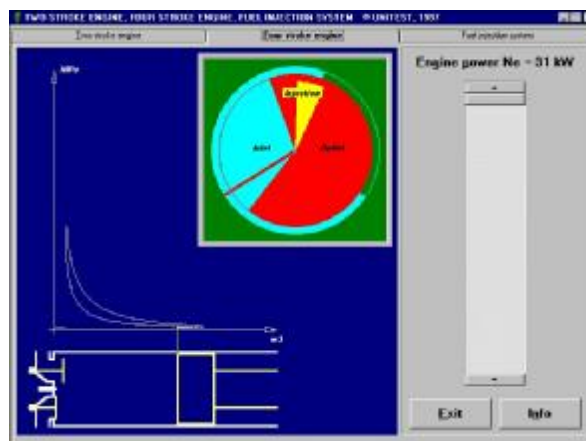
MARINE COMPRESSORS



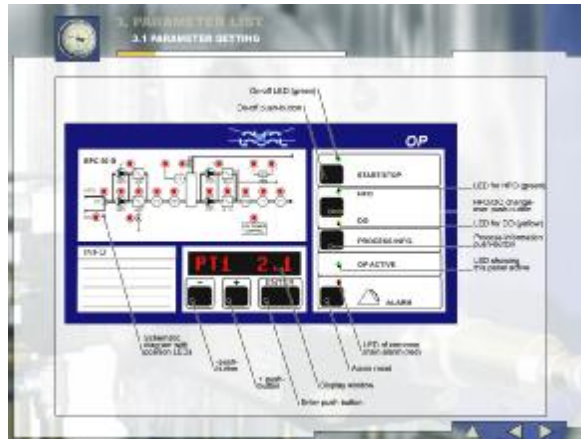
EMERGENCY POWER PLANT



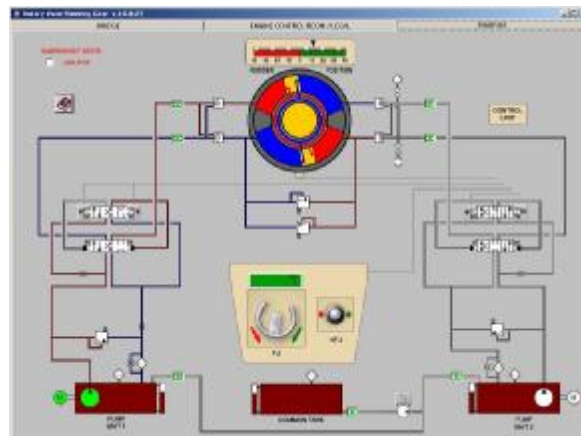
FOUR-STROKE DIESEL ENGINE



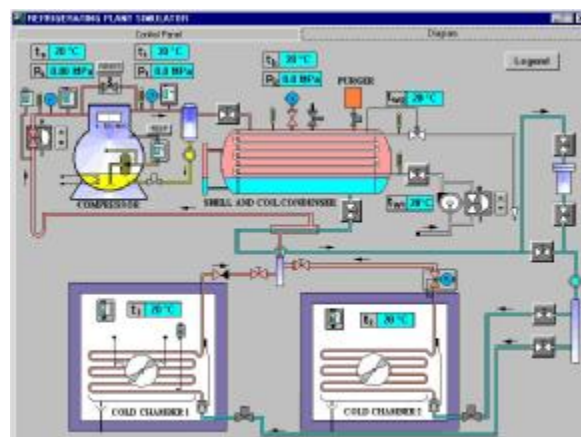
FUEL CONDITIONING



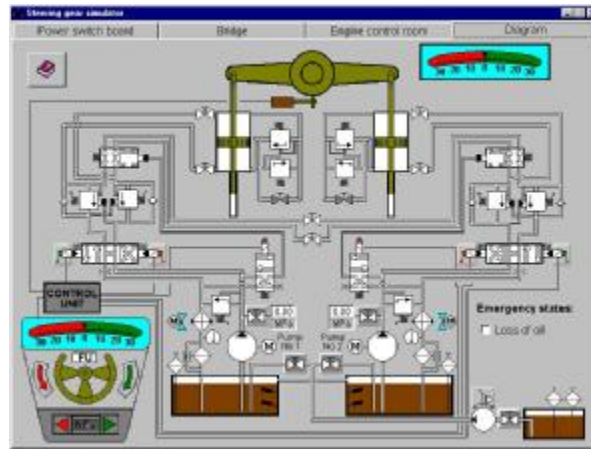
ROTARY VANE STEERING GEAR



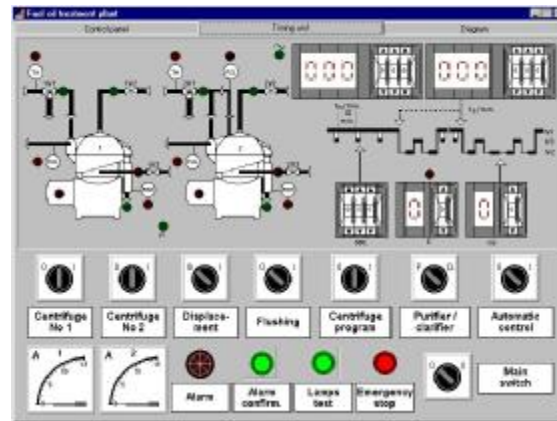
REFRIGERATION PLANT



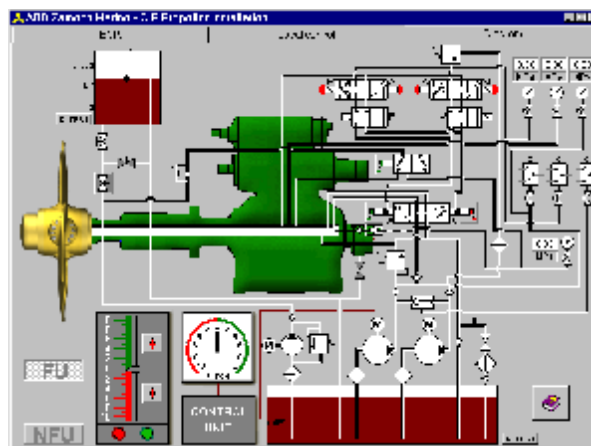
STEERING GEAR



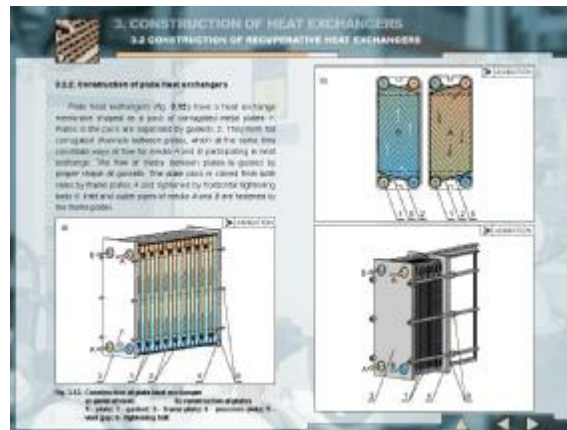
FUEL OIL TREATMENT PLANT



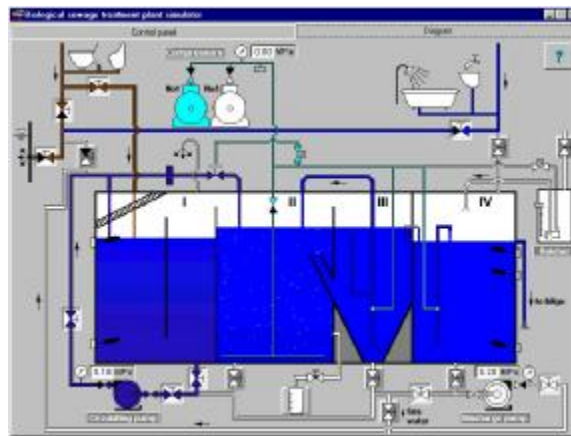
CONTROLLABLE PITCH PROPELLER



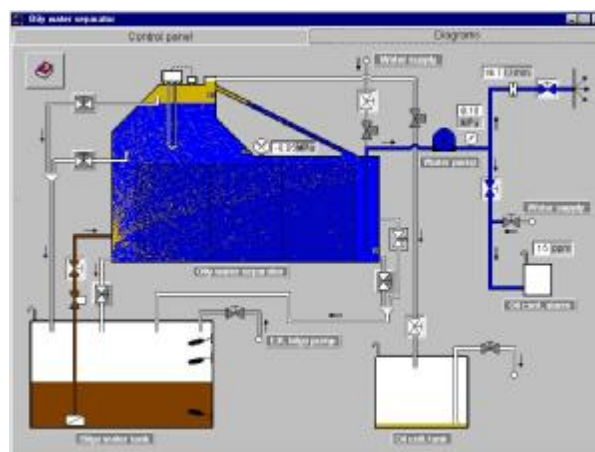
MARINE HEAT EXCHANGERS



BIOLOGICAL SEWAGE TREATMENT PLANT



OILY WATER SEPARATOR



Please contact us if you would like further details about Engine Room CBT.