



PEM OFFSHORE

PEM OFFSHORE SIMULATION AND INNOVATION CENTER



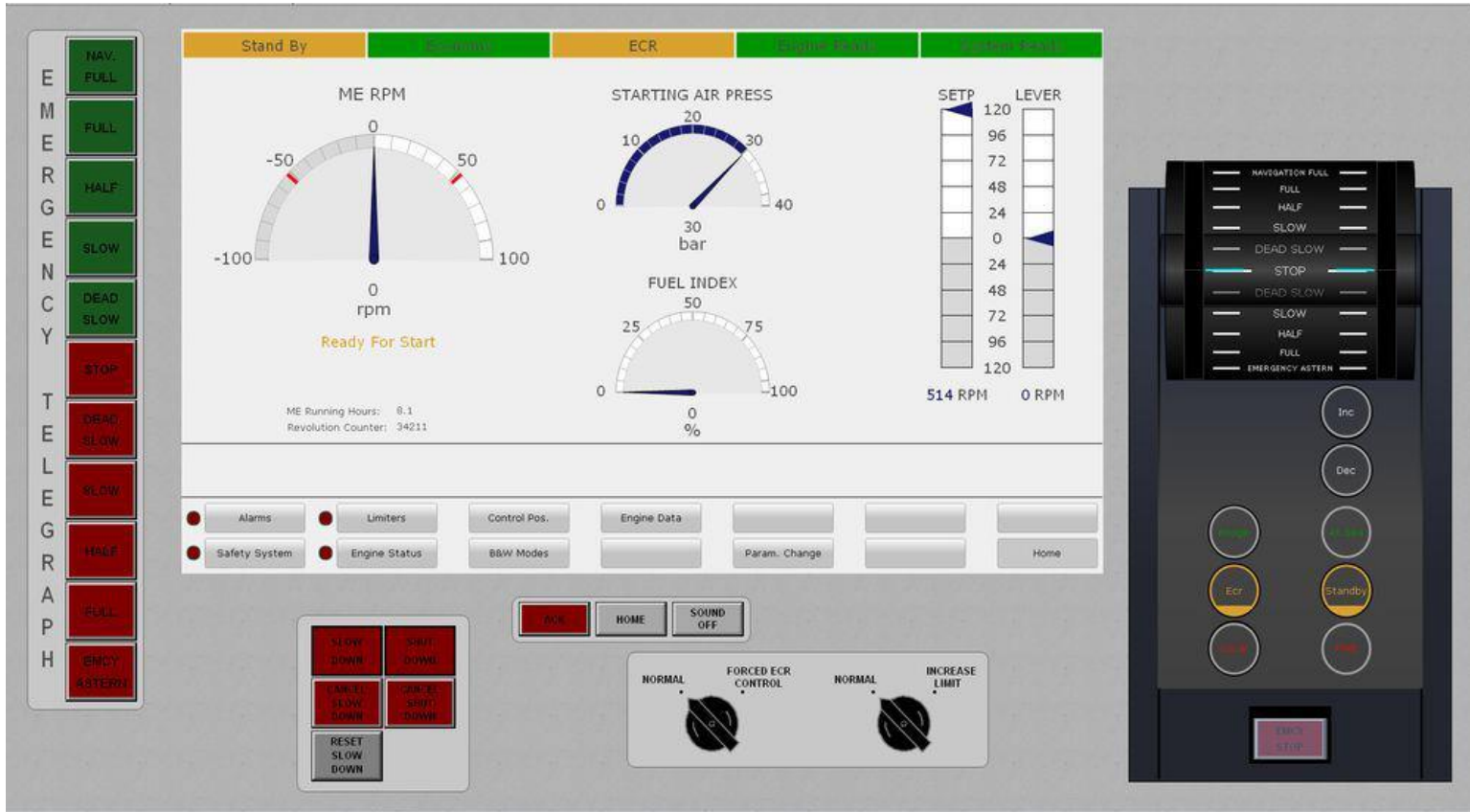
KONGSBERG



K-Sim Engine SUEZMAX MAN 6S70ME-C SCC

The **K-Sim Engine SUEZMAX MAN 6S70ME-C SCC** model simulates a Suez Max crude oil carrier with a MAN slow speed turbo charged diesel engine as propulsion unit modelled with fixed propeller. 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.

The model is based on real engine data that makes the dynamic behavior of the simulator close to real engine response. In addition to the MAN engine, the vessel has an electrical power plant including three 1125 kVA diesel generators and one 250 kVA emergency generator. The steam plant includes two D-type steam boilers, based on Alfa Laval and one composite boiler (Aalborg), 3 cargo turbines, condensing and feed water systems. Control room operator station, bridge and steering panels are included.



Training objectives

The K-Sim Engine MAN 6S70ME-C SCC 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.



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Model Main Specifications

High fidelity engine room systems include:

- Sea & LT/HT fresh water systems, incl. FW generator
- Electrical power plant, incl. diesel generators and Power Management (K-Chief) • Start & service air compressors, incl. compressor intermediate coolers and emergency compressor
- Integrated Automation System, incl. Vessel Performance Monitor
- Steam plant Incl. D-type oil fired boilers and combined exhaust/oil fired boiler
- Diesel/heavy fuel/oil systems, incl. HFO, LSHFO and MDO tanks, separators, viscometers
- Lubricating oil systems, incl. separator
- Stern tube systems
- Steering gear
- Main engine control system (MAN)
- Main engine remote control system (AC 600)
- Main engine maneuvering system
- Main engine hydraulic oil system
- Main engine hydraulic cylinder units system
- Cylinder indication diagrams
- Air ventilation system
- Bilge wells & bilge separator
- Sewage treatment plant
- Incinerator plant
- Inert gas system
- Ballast system
- Refrigeration system
- Ship loading system
- Fire detection system
- Fire fighting system
- Remote CO2 release, emergency stops and quick release valves
- Emission Control System (water scrubbing, exhaust gas recirculation (EGR) and ME low Nox mode)

Note: Specifications subject to change without any further notice.