

STATEMENT OF COMPLIANCE

Particulars of Product

Name of Product: Machinery Operation Simulator

Type designation: K-Sim Engine MAN B&W 5L90MC VLCC L11-V

Particulars of Manufacturer

Manufacturer: Kongsberg Digital AS

Manufacturer address: Maritime Simulation, Horten, Norway

This is to confirm:

That the above product is found to comply with Class A- Standard for Certification of Maritime Simulators No. DNVGL-ST-0033 March 2017.

Application

The above Standard is based on requirements in the STCW Convention, Regulation I/12.

This Statement is valid until **2022-06-15**, provided the requirements for the retention of the Statement will be complied with.

Issued at **Sandefjord** on **2017-06-19**


 for **Nils Gunnar Bø**
Area Manager

for **DNV GL**




Capt. Aksel David Nordholm
Auditor



Application/Limitation


STCW Competence

Reference

- Table A-III/1.1 Maintain a safe engineering watch
- Table A-III/1.3 Use internal communication systems
- Table A-III/1.4 Operate main and auxiliary machinery and associated control systems
- Table A-III/1.5 Operate fuel, lubrication, ballast and other pumping systems and associated control systems
- Table A-III/1.6 Operate electrical, electronic and control systems
- Table A-III/1.11 Maintain seaworthiness of the ship
- Table A-III/2.1 Manage the operation of propulsion plant machinery
- Table A-III/2.2 Plan and schedule operations
- Table A-III/2.3 Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery
- Table A-III/2.4 Manage fuel, lubrication and ballast operations
- Table A-III/2.5 Manage operation of electrical and electronic control equipment
- Table A-III/2.6 Manage troubleshooting restoration of electrical and electronic control equipment to operating condition
- Table A-III/2.8 Detect and identify the cause of machinery malfunctions and correct faults
- Table A-III/2.10 Control trim, stability and stress
- Table A-III/2.11 Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea and protection of the marine environment
- Table A-III/2.14 Use leadership and managerial skills
- Table A-III/4.2 For keeping a boiler watch: Maintain the correct water levels and steam pressures
- Table A-III/6.1 Monitor the operation of electrical, electronic and control systems
- Table A-III/6.2 Monitor the operation of automatic control systems of propulsion and auxiliary machinery
- Table A-III/6.3 Operate generators and distribution systems
- Table A-III/6.4 Operate and maintain power systems in excess of 1,000 Volts
- Table A-III/6.5 Operate computers and computer networks on ships
- Table A-III/6.6 Use internal communication systems
- Table A-III/6.8 Maintenance and repair of automation and control systems of main propulsion and auxiliary machinery
- Table A-III/6.9 Maintenance and repair of bridge navigation equipment and ship communication systems
- Table A-III/6.10 Maintenance and repair of electrical, electronic and control systems of deck machinery and cargo-handling equipment
- Table A-III/6.11 Maintenance and repair of control and safety systems of hotel equipment
- Table A-III/7.5 Contribute to the maintenance and repair of electrical systems and machinery on board

Sec. 4, Table C1 Physical realism, *The following additional requirements for simulators used for training ship's electrical officers (STCW Table A-III/6 -7) Class S apply*

- 2.2.2 It shall be possible to simulate auto slow-down and emergency shutdown.
- 2.2.4 It shall be possible to simulate testing of the 24V D.C. power supply to the navigation, communication and engine room control console in event of power failure.
- 2.2.5 It shall be possible to simulate safe methods of testing the insulation for rotor and stator.
- 2.2.6 It shall be possible to simulate of reading a power factor meter with reference to four segments.
- 2.2.7 It shall be possible to simulate testing of the devices and relays provided for generator protection.
- 2.2.8 It shall be possible to simulate tests related to AVR (Automatic Voltage Regulator).
- 2.2.12 It shall be possible to simulate routine tests on an emergency generator.
- 2.2.13 It shall be possible to simulate how a generator circuit breaker OCR (Over Current Relay) is set and tested.
- 2.2.14 It shall be possible to simulate the process of connecting a shaft generator on load and specific conditions for taking off load.
- 2.2.16 It shall be possible to simulate paralleling of generators using synchro-scope and demonstrate the method to parallel, if synchro-scope is faulty.
- 2.2.18 It shall be possible to simulate recovery from "dead ship" condition.
- 2.2.19 It shall be possible to simulate methods to test the "Preferential Tripping Sequence"
- 2.2.20 It shall be possible to simulate methods to test auto "Cut In" of stand by generator.
- 2.2.21 It shall be possible to simulate methods of diagnosing single phasing fault.
- 2.2.22 It shall be possible to simulate operation and maintenance of variable speed motor starters.
- 2.2.23 It shall be possible to simulate operational test methods of oily water separator monitors.



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- 2.2.24 It shall be possible to simulate test methods for level alarms and function tests of bilge pumping arrangement.
- 2.2.26 It shall be possible to simulate the function test of OWS (oily water separator) and PPM (parts per million) unit