

STATEMENT OF COMPLIANCE

Particulars of Product

Name of Product: **Machinery Operation Simulator**
 Class notation: **EO, FUEL**
 Type designation: **K-Sim® Engine L11-MAN 6S70ME Suezmax Crude Carrier**

Particulars of Manufacturer

Manufacturer: **Kongsberg Digital AS - Maritime Simulation**
 Manufacturer address: **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 **2022-12-14**, provided the requirements for the retention of the Statement will be complied with.

Issued at **Sandefjord** on **2012-12-14**


Nils Gunnar Bøe
 Head of DNV GL SeaSkill

for **DNV GL**




Capt. Aksel David Nordholm
 Auditor



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Job Id:
Statement No: **001/171214**
DNV GL Id. No:
10564901

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/6.5 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*

- 2.2.1 It shall be possible to demonstrate systematically the tests that are made on the UMS (unmanned machinery space) alarm system.
- 2.2.2 It shall be possible to simulate auto slow-down and emergency shutdown.
- 2.2.3 It shall be possible to simulate safe methods to test inert gas generator (IG) alarms and controls.
- 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.
- 2.2.17 It shall be possible to simulate the maintenance and checks carried out on an ACB (air circuit breaker).
- 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.
- 2.2.23 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.
- 2.2.25 It shall be possible to simulate the functional tests of ODMCS (oil discharge monitoring and control system) and ODME (oil discharge monitoring equipment) system.
- 2.2.26 It shall be possible to simulate the function test of OWS (oily water separator) and PPM (parts per million) unit.

This Statement of Compliance is for the manufacturer offering the simulator for examination or mandatory simulator training and complies with the requirements of DNVGL-ST-0033 Maritime Simulator Systems.

Based on this statement of compliance, maritime training providers in possession of simulators that comply with the requirements of the standard can apply for a product certificate for "Maritime simulator". The simulator's function area and the simulator class according to the standard will be stated on the certificate.

