PRODUCT CERTIFICATE

Particulars of Product

Function Area:	**MACHINERY OPERATION SIMULATOR**
Name and type designation:	**K-Sim® Engine DE66 Drill ship**
In use for simulation at:	**K-Sim Connect**

Particulars of Manufacturer

Manufacturer:	**K-SIM AS**
Manufacturer address:	**Horten, Norway**

This is to certify:

That the above product is found to comply with Class D, S - Standard for Certification of Maritime Simulators No. DNV-ST-0033 June 2021.

Application

The above Standard is based on requirements in the STCW Convention, Regulation I/12 and corresponding industry standard and guidelines.

This Certificate is valid until **2026-06-24**, provided the requirements for the retention of the Certificate will be complied with.

Issued at **Horten, Norway** on **2025-04-01**

for **DNV**

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnv.com by using the Unique Tracking Number (UTN):
n2046789-cce and ID: 10564901

Aksel David Nordholm
Approval Expert

Application/Limitation

**The competencies addressed by machinery operation simulator classes are given in
Section 4, Table 4-2.**

**The following additional requirements for simulators used for training ship's electrical officers (STCW Table
AIII/6 -7) Class S apply for the K-Sim® Engine DE66 Drill ship simulator:**

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.
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.
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.
2.2.26   It shall be possible to simulate the function test of OWS (oily water separator) and PPM (parts per million) unit.

Endorsement for Annual Audits

THIS IS TO CERTIFY:

at an annual audit as required by the Standard, the Simulator System was found to comply with the relevant requirements of the Standard.

1st Annual Audit   Place: ....   Date: ....

Signature: ....

Stamp   Auditor, DNV

2nd Annual Audit   Place: ....   Date: ....

Signature: ....

Stamp   Auditor, DNV

3rd Annual Audit   Place: ....   Date: ....

Signature: ....

Stamp   Auditor, DNV

4th Annual Audit   Place: ....   Date: ....

Signature: ....

Stamp   Auditor, DNV