DNV·GL

PRODUCT CERTIFICATE

Certificate No:
001/120617
DNV Id.:
179679

Particulars of Product

Name of Product:	**Bridge Operation Simulator**
Class notation:	**INTEGRATED SIMULATOR SYSTEM, DYNPOS (SIM), HSC, TUG, ICE)**
Type designation:	**K-Sim Navigation & Offshore (Bridge A)**
In use for simulation at:	**Kongsberg Maritime Training, Grilstad - Trondheim**

Particulars of Manufacturer

Manufacturer:	**KONGSBERG DIGITAL AS - Maritime Simulation**
Manufacturer address:	**Horten, Norway**

This is to certify:

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 Certificate is valid until **2022-06-12**, provided the requirements for the retention of the Certificate will be complied with.

Issued at **Sandefjord** on **2017-06-12**

for **DNV GL**

Nils Gunnar Bøe
Area Manager

Capt. Aksel David Nordholm
Auditor

This Certificate is subject to terms and conditions overleaf. Any significant change in simulation performance may render this Certificate invalid.

Form code: 40.070a   Revision: 2017-04   www.dnvgl.com   Page 1 of 2

Application/Limitation

The competencies addressed by bridge operation simulator classes are given in Table B1.

Table B1 Competencies addressed by bridge operation simulator class					
STCW reference	Competence	Class A (NAV)	Class B (NAV)	Class C (NAV)	Class S (NAV)
Table A-II/1.1	Plan and conduct a passage and determine position	A	B		(S)
Table A-II/1.2	Maintain a safe navigational watch	A	B		(S)
Table A-II/1.3	Use of radar and ARPA to maintain safety of navigation	A	B	C	(S)
Table A-II/1.4	Use of ECDIS to maintain the safety of navigation	A	B	C	(S)
Table A-II/1.5	Respond to emergencies	A	B	C	(S)
Table A-II/1.6	Respond to a distress signal at sea	A	B	C	(S)
Table A-II/1.8	Transmit and receive information by visual signalling	A	B	C	(S)
Table A-II/1.9	Manoeuvre the ship	A	B	C	(S)
Table A-II/2.1	Plan a voyage and conduct navigation	A	B		(S)
Table A-II/2.2	Determine position and the accuracy of resultant position fix by any means	A	B		(S)
Table A-II/2.3	Determine and allow for compass errors	A	B		(S)
Table A-II/2.4	Co-ordinate search and rescue operations	A	B		(S)
Table A-II/2.5	Establish watchkeeping arrangements and procedures	A	B		(S)
Table A-II/2.6	Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making	A	B	C	(S)
Table A-II/2.7	Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making	A	B	C	(S)
Table A-II/2.10	Manoeuvre and handle a ship in all conditions	A			(S)
Table A-II/2.11	Operate remote controls of propulsion plant and engineering systems and services	A			(S)
Table A-II/3.1	Plan and conduct a coastal passage and determine position	A	B		(S)
Table A-II/3.2	Maintain a safe navigational watch	A	B		(S)
Table A-II/3.3	Respond to emergencies	A	B	C	(S)
Table A-II/3.4	Respond to a distress signal at sea	A	B	C	(S)
Table A-II/3.5	Manoeuvre the ship and operate small ship power plants	A			
Table A-II/5.2	Contribute to berthing, anchoring and other mooring operations	A	B	C	(S)