



DNV Id No.: 10137219
Certificate number: 003/140228

DET NORSKE VERITAS

PRODUCT CERTIFICATE

This Certificate consists of 3 pages

This is to Certify that the product
Dynamic Positioning Simulator

and type designation
Dynpos (Autr)

Manufactured by
ARI Simulation
New Delhi India

In use for simulation at
NUSI Offshore Training Institute

is found to comply with
Class B- Standard for Certification of Maritime Simulators No. 2.14 January 2011

Application

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

This Certificate is valid until **2019-02-28**, provided the requirements for the retention of the Certificate will be complied with.

Issued at **Mumbai** on **2014-02-28**

for Det Norske Veritas AS

Kamal Kumar
Country Manager



Vernon Sequeira
Principal Surveyor

This Certificate is subject to terms and conditions overleaf. Any significant change in simulation performance may render this Certificate invalid. If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

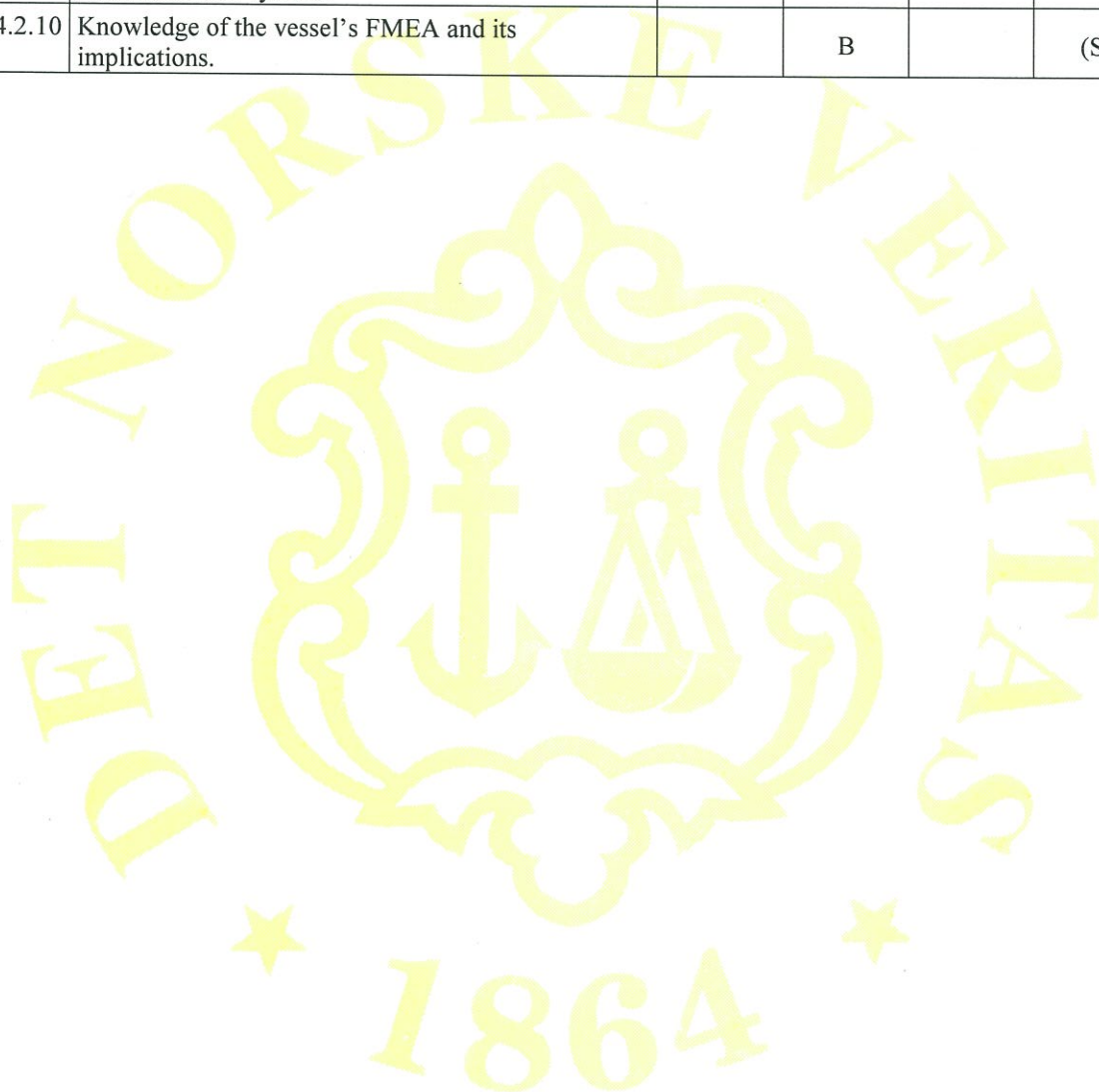
Application/Limitation

The simulator is capable of simulating a realistic environment for all of the applicable IMCA M117 competence requirements referred to in the column for Class B in Table B1.

Table B1 Competencies addressed by dynamic positioning simulator class003-140228 - DP.docx					
IMCA M117 reference	Competence	Class A (DP)	Class B (DP)	Class C (DP)	Class S (DP)
Section 6.1.1	DP incident investigation.	A	B		(S)
Section 6.1.2	Comprehensive understanding of the DP computer/control system(s), including changing between systems and the various modes of operation.	A	B		(S)
Section 6.1.4	Detailed knowledge of emergency procedures and actions due to failure of: generator/power thrusters sensors input systems computer commands feedback any other systems/equipment relevant to dynamic positioning.	A	B		(S)
Section 6.1.5	Detailed knowledge of emergency procedures and actions that have impact on the DP operation as defined in the emergency/contingency procedure manual.	A	B		(S)
Section 6.1.6	Assessor level in the setup and use of all position reference systems.	A	B		(S)
Section 6.1.7	Assessor level in the understanding, setup, functionality, failure modes and use of any equipment and system associated with DP operations on the vessel.	A	B		(S)
Section 6.1.8	The ability to plan, execute and lead DP drills including blackout recovery.	A	B		(S)
Section 6.3.2.1/6.4.2.1	Controlling the vessel using manual and joystick controls.	A	B		(S)
Section 6.3.2.2/6.4.2.2	Changing operational modes between auto DP to joystick to manual controls to autopilot and vice versa.	A	B		(S)
Section 6.3.2.3	Principles and planning of DP operations in depth.	A	B		(S)
Section 6.3.2.4	DP information input systems.	A	B		(S)
Section 6.3.2.5	Detailed knowledge of DP computer/control system(s), including changing between systems and the various modes of operation.	A	B		(S)
Section 6.3.2.6	Thrusters units and associated systems.	A	B		(S)
Section 6.3.2.7	Power supplies.	A	B		(S)
Section 6.3.2.8	Equipment redundancy, availability and maintenance requirements.	A	B		(S)
Section 6.3.2.9	Operational capabilities and footprints.	A	B		(S)
Section 6.3.2.10	Comprehensive knowledge of the vessel's communications systems.	A	B		(S)

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Section 6.3.2.11	Knowledge of emergency procedures and actions due to failure of: generator/power thrusters sensors computers commands feedback any other systems/equipment relevant to the DP.		B		(S)
Section 6.3.2.12	Knowledge of the vessel's FMEA (failure modes and effects analysis) and understanding of the implications of all identified failure modes.	A	B		(S)
Section 6.4.2.4	Basic knowledge of the practical operation of DP control system, including changing between systems and the various modes of operation.	A	B	C	(S)
Section 6.4.2.5	Knowledge and use of reference systems and other peripheral equipment.	A	B	C	(S)
Section 6.4.2.6	Systems redundancy, alarms and warnings.	A	B	C	(S)
Section 6.4.2.7	Knowledge of vessel systems and their limitations.	A	B	C	(S)
Section 6.4.2.8	Knowledge of DP alarm sequences and communications with reference to operational condition.	A	B	C	(S)
Section 6.4.2.9	Knowledge of the vessel's operations manuals and communication system.	A	B	C	(S)
Section 6.4.2.10	Knowledge of the vessel's FMEA and its implications.		B		(S)



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