

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.	20 306 - 11 HH
Company	Orion Marine Concepts Office; 302, Suncity Business Tower, Sector-54, Gurgaon - 122003, INDIA
Product Description	Integrated Vessel Management System IVMS
Type	Orion Enterprise (NAU) Version 2.x
Environmental Category	None
Technical Data / Range of Application	Modules: Planned Maintenance System Inventory, Requisition and Procurement Crew Management and Work Rest Hours User Management and administration for Master data creation for all modules Synchroniser; for ship, shore interface data transfer VPRM - Vessel Performance Reporting and Monitoring Q Strata - Quality, Safety, Trends, Risks, Assessments, Timelines & Analysis Minimum System Requirements: 2 GB RAM, Windows 7 edition Application Server: Internet Information Server Database Technology: Microsoft SQL Server 2008 and above Software Version: 2.x (Release Note for Version 2.0 dated 28-11-2015) Tests and Evidence according Requirement Class 1 Remark: No automatic data exchange between and from ships systems to IVMS.
Test Standard	Regulations for the Use of Computers and Computer Systems
Documents	Test report : Product Test Reports Ship Side and Shore Side dated 15.08.2011 Software Requirements Specification dated 15-05-2010; Project Plan Integrated Vessel Management System (NAU) Software Projekt Version 1.0 dated 22.05.2010; User Manual dated 14.01.2011; Release Note Version 2.0 dated 28-11-2015
Remarks	This certificate is issued on the basis of GL Guidelines for the Performance of Type Approvals, Chapter 1 - Procedure (VI-7-1), Edition 2007.

Valid until **2021-01-20**

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Hamburg, 2016-01-21

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VPRM - Vessel Performance Reporting and Monitoring

Data Management

Data history for the Sea and Port reports
 Vessel positions on the Map with their latest speed and cons data
 Voyage Reports & Performance
 Deck & Engine Abstracts
 Environmental data
 MRV required Emissions Data compliance with EU & IMO requirements
 Vessel Standard Data for Sea Trials or test results
 Vessel Dry Dock, Propeller Polishing and Hull Cleaning history

Analysis (no connection to sensors or other electronic components)

Speed, Consumptions, Power, RPM, Specific Fuel Oil Consumption, Fuel Oil Tons/mile, Hull and propeller Performance, Regression factors, Slip, Lubes consumptions, Distance and Steaming Profile, etc.

Monitoring, Reporting and Verification (MRV) for ECA and Non – ECA zones, – EEOI, CO₂, SO_x and NO_x emissions along with Efficiency

Dynamic Analysis by selecting user defined parameters

Alerts and Reports;

Fleet positions and consumptions, Underperformance, Designated Critical Ports, Other user specific Alerts

Other user defined reports

Electronic Safety Management System

Electronic SMS

Fleet alerts and Circulars for Fleet Sharing
 Electronic Forms, Checklists and Permit to Work System
 Revisions history
 Familiarisation form for Company SMS
 Management of Change

Q - Strata – Quality, Safety, Trends, Risks, Assessments, Timelines & Analysis

Data Management, Entry & Reports;

Inspections; Vetting, PSC, Superintendent and others
 Incident Reporting, root cause, etc.

Budget Performance

Dry Dock planning & performance
 Administrative area for Vessels, reports and principal data
 User defined Reports generation
 Notifications and Correspondence

Analysis

Shipping Major and Key Performance Indicators
 Vetting and Port State Control inspections,
 Dry Dock, Budgets and OPEX,
 Incidents
 Fleet Benchmarking
 User defined Analysis

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