Certificate Number: 01-LD206404-4-PDA

Confirmation of Product Type Approval 23/JUN/2011

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 19/MAY/2014. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 19/OCT/2015 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

PRAXIS AUTOMATION TECHNOLOGY B.V.
Model Name(s): Mega-Guard / Maxi-Guard

Presented to:
PRAXIS AUTOMATION TECHNOLOGY B.V.
WILLEM BARENTZSTRAAT 1
LEIDEN
Netherlands

Intended Service: The Mega-Guard / Maxi-Guard Common Control Platform can be used in different Praxis Automation controller systems, e.g. main engine remote and safety control system, alarm monitoring and control system, power management system, DPS-1 & DPS-2 dynamic positioning systems on vessels with AMS, ACC & ACCU notations and offshore units.

Description: OWS / EAS - Operator Work Station and Extension Alarm System for control and graphic presentation, comprising Model 6001, Marine Personal Computer; Redundant Network Interface; Operator Keyboard; Trackerball; Local Operator Panel; 8 (or 3) Channel LED Indicator Panel. PCU/DPU - Process Control Units / Distributed Processing Unit for processing of inputs, outputs, alarms and control loops, comprising Model 6030, Digital input/output board - DIN rail model; Model 6032, Digital input unit - DIN rail model; Model 6034, Mixed input/output module, DIN rail model and engine mounted (EM) model; Model 6049, Local processor board with redundant network interface - DIN rail model. PCS/BMS - Propulsion Control System / Bridge Manoeuvring System comprising all models as mentioned under PCU; Propulsion Control System Bridge/CR, command lever and telegraph panel; Safety panel; Bridge/ER telegraph panel; Electronic drive unit; Electronic Actuator; Governor panel. PMS Power Management System comprising all models as mentioned under PCU; Synchroniser and power/short circuit module; Display and operating module. DPS-1 & DPS-2 Dynamic Positioning System comprising model 6001 Marine Personal Computer, including redundant network interface (type 98.6.001.7xx), TFT colour graphic screen (type 98.6.02x.6xx), Operator Keyboard (type 93.6.02x.00x), Keyboard/ Tracker ball (93.6.02x..00x), all models under PCU, 7" TFT Operator Panel (type 98.6.02x.6xx), Joystick and Rate of Turn

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	Panel (type 98.6.02x.6xx).
Ratings:	Power Supply: 230 VAC and 24 VDC
Service Restrictions:	Unit Certification is required for this product.
Comments:	The Common Control Platform (CCP) can be used in different Praxis Automation applications. When the equipment is for a specific project such as main propulsion or DP controls, a failure mode and effect analysis of the control system is specifically required. Tests and approval are for hardware and firmware only. Each configuration and external connection is to be specifically approved.
Notes / Documentation:	This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.
Term of Validity:	This Product Design Assessment (PDA) Certificate 01-LD206404-4-PDA, dated 20/Oct/2010 remains valid until 19/Oct/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.
ABS Rules:	2010 Steel Vessel Rules 1-1-4/7.7, 4-3-5/15, 4-9-1/9.7, 9.9 & 9.11, 4-9-2/5 and 9, 4-9-6 and 4-9-7
National Standards:	
International Standards:	IMO MSC/Circ. 645 Guidelines for Dynamic Positioning Systems, IEC 60529 and IACS E10, E22 (CAT II)
Government Authority:	
EUMED:	
Others:	

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	01-LD206404-4-PDA	20/OCT/2010	19/OCT/2015

ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.

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