



CERTIFICATE NUMBER

01-LD206404-4-PDA

DATE

20 October 2010

ABS TECHNICAL OFFICE

London Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
PRAXIS AUTOMATION TECHNOLOGY B.V. - LEIDEN

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: COMMON CONTROL PLATFORM

MODEL: Mega-Guard / Maxi-Guard

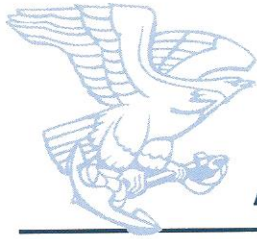
ABS RULE: 2010 Steel Vessel Rules 1-1-4/7.7, 4-3-5/15, 4-9-1/9.7, 9.9 & 9.11, 4-9-2/5 and 9, 4-9-6 and 4-9-7

OTHER STANDARD IMO MSC/Circ. 645 Guidelines for Dynamic Positioning Systems, IEC 60529 and IACS E10, E22 (CAT II);

AMERICAN BUREAU OF SHIPPING


Wing F. Cheung
Engineering Type Approval Co-ordinator

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A/3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).



ABS

TYPE APPROVAL PROGRAM

CERTIFICATE NUMBER

RO1676501-X

PLANT LOCATION

Leiden, The Netherlands

ABS OFFICE

Rotterdam, The Netherlands

CERTIFICATE OF Manufacturing Assessment

This is to Certify that a representative of this Bureau did, at the request of
Praxis Automation Technology B.V.

Attend their facilities at the location noted above, in order to carry out an audit of their facilities and associated quality assurance and quality control procedures. The facility is considered capable of consistently manufacturing;

Integrated Monitoring and Control System

in compliance with their ABS Product Design Assessment Certificates and the designated standards defined therein. The product listed on their current Product Design Assessment Certificates are eligible to be placed on this Bureau's *List of Type Approved Products*, subject to annual facility audits by a representative of this Bureau, and renewal of this Certificate after five (5) years.

ISSUE DATE 20-May-09

EXPIRATION DATE 20-May-14

SURVEYOR'S SIGNATURE


H.K. van Leeuwen

FIRST ANNUAL ENDORSEMENT



Date: 25 May 2010

SECOND ANNUAL ENDORSEMENT



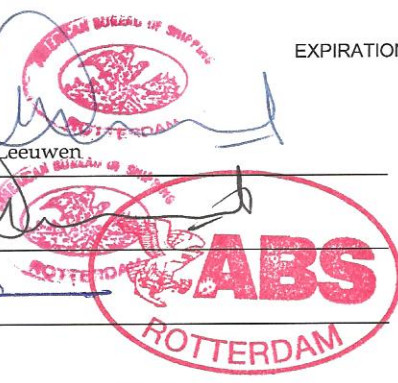
Date: 23 June 2011

THIRD ANNUAL ENDORSEMENT

Date: _____

FOURTH ANNUAL ENDORSEMENT

Date: _____



AB257 (03-04)

Note: This certificate evidences compliance with one or more of the Rules, Guides, standards, or other criteria of American Bureau of Shipping; or a statutory, industrial, or manufacturer's standard, and is issued solely for the use of the Bureau, its committees, its clients, or other authorized entities. This certificate is governed by the terms and conditions on the reverse side hereof.

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Web: www.praxis-automation.nl

MA Certificate No. 09-RO1676501-X

Product: COMMON CONTROL PLATFORM

Model: Mega-Guard / Maxi-Guard

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 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 / Drawings / 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



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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.

STANDARDS

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:

NA

International:

IMO MSC/Circ. 645 Guidelines for Dynamic Positioning Systems, IEC 60529 and IACS E10, E22 (CAT II)

Government Authority:

NA

EUMED:

NA

Others:

NA

