



### ***Confirmation of Product Type Approval 27/JAN/2009***

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 28/FEB/2013. 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 25/JAN/2014 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.

#### **MARINER SYSTEMS UK LTD**

**Model Name(s): MS2150 and MS2160 mounting devices certified for use with HP Compaq dc7900 Convertible MiniTower (CMT) PC series**

**Presented to:**

MARINER SYSTEMS UK LTD  
OAKLANDS PARK  
WOKINGHAM  
BERKSHIRE RG41 2FD  
United Kingdom

<b>Intended Service:</b>	Navigation, loading instrument & general purpose applications
<b>Description:</b>	Mariner Systems (UK) Ltd mounting devices: MS2150 or MS2160. The personal computer must be used in conjunction with one of the above mounting devices for operation in the marine environment.
<b>Ratings:</b>	Wide range input voltage
<b>Service Restrictions:</b>	Unit certification is not required for the mounting device. The PC will require Unit Certification if intended for use in any machinery monitoring or directional functions onboard an ABS classed vessel, MODU or facility
<b>Comments:</b>	For use in conjunction with Mariner Kit: Part No.s MS2150 or MS2160. The approved models/model numbers are listed within Mariner Systems (UK) Ltd Website: <a href="http://www.marinersystems.com">www.marinersystems.com</a>
<b>Notes / Documentation:</b>	Approval Documentation: Environmental Test File No.s TL1226 & TL1227
<b>Term of Validity:</b>	This Design Assessment Certificate number 09-LD425281-PDA, dated 26/Jan/2009 will expire on 25/Jan/2014 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2010, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on

board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

**ABS Rules:** 1-1-4/7.7, 4-9-7/13.1 and 4-9-7/ Table 9 & Table 10 of the Steel Vessel Rules, 2009

**National Standards:**  
**International Standards:** IEC 60945 ed. 4.0 2002-08 (relevant sections), and IACS E10 rev. 5 2006

**Government Authority:**

**EUMED:**

**Others:**



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.