



CERTIFICATE NUMBER

10-HG638434-PDA

DATE

19 October 2010

ABS TECHNICAL OFFICE

Hamburg Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
IMES GMBH - D-87600 KAUFBEUREN

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: Pressure Transducer

MODEL: Cylinder Pressure Sensor - HTT-04CA

ABS RULE: 2010 Steel Vessel Rules 1-1-4/7.7, 4-6-2/9.11.2/3, 4-8-3/1.7/1.11/1.17, 4-9-7/13

OTHER STANDARD

AMERICAN BUREAU OF SHIPPING

Michael R. V. Zech
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-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

IMES GMBH

DR.-HERBERT-KITTEL-STR. 2

D-87600 KAUFBEUREN

Germany

Telephone: 08341 9661730

Fax: 08341 96617318

Product: Pressure Transducer

Model: Cylinder Pressure Sensor - HTT-04CA

Intended Service:

Pressure sensing for combustion analysis with alarm, monitoring and control function for marine applications.

Description:

Housing made of stainless steel. The HTT sensor head is available with different tube length and different cable length between sensor head and SCU. The cable is armored with steel for installation at harsh environments.

Ratings:

Pressure ranges: 0 ... 300 bar

Supply Voltage: 18 ... 32 V DC

Output Signal: 4 ... 20 mA

Temperature range of SCU: -40 Deg. C to 75 Deg. C

Temp. at measuring cell: 300 Deg. C

Degree of Protection: IP65

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

Each particular application and installation is to be specifically approved in conjunction with the relevant system, locations and environmental conditions.

Term of Validity:

This Product Design Assessment (PDA) Certificate 10-HG638434-PDA, dated 19/Oct/2010 remains valid until 18/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.

STANDARDS

ABS Rules:

2010 Steel Vessel Rules 1-1-4/7.7, 4-6-2/9.11.2/3, 4-8-3/1.7/1.11/1.17, 4-9-7/13

National:

NA

International:

NA

Government Authority:

N/A

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NA

EUMED:

NA

Others:

NA