



Confirmation of Product Type Approval

Company Name: CYGNUS INSTRUMENTS LIMITED

Address: CYGNUS HOUSE30 PRINCE OF WALES ROAD DORCHESTER DT1 1PW United Kingdom

Product: Tightness Detection System

Model(s): MKII-HLD

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	23-2474040-PDA	06-DEC-2023	05-DEC-2028
Manufacturing Assessment (MA)	19-NC3704874	22-JUL-2019	30-JUL-2024
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Weather and water tightness testing system used on ABS vessels and offshore units. Primary function is to test cargo hatch cover for water tightness but can also be used to check tightness of doors, windows, ramps and bulkheads.

Description

The portable system comprises a battery operated micro-processor controlled receiver and a transmitter, both operating at 40 kHz to produce a uniformly distributed omni-directional ultrasound field, connects to a 12 mm diameter inspection microphone mounted on a telescopic arm with cables. This unit allows tightness measurements to be taken in dB or open hatch values. A rotary switch with five position selections is implemented on the transmitter. The function of the rotary switch is to allow the user to adjust different power outputs, which could be used for testing such as internal water tight doors.

Ratings

Power supply: Transmitter 6 Rechargeable NiMH (or 6 disposable) AA batteries or external 12-24 DC V
Power source, Receiver: 1 PP3 9V battery;

Enclosure rating: Transmitter:IP40; Receiver: 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. Not suitable to be used in hazardous environment.

Comments

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

Drawing No. NA, Expanded Technical Explanation, Revision: 1, Pages: 1

Drawing No. Cygnus Hatch Sure Technical Specifications, Cygnus Hatch Sure Technical Specifications, Revision: 2 Pages: 2

Drawing No. M1-HLD-M-ENG, Cygnus Hatch Sure Operating Manual, Revision:11, Pages: 62

Drawing No Cygnus Hatch Sure Technical Specifications v3, Cygnus Hatch Sure Technical Specifications v3, Revision:0, Pages: 2, dated 19 October 2023,

Drawing No M1-HLD-M-ENG, Ultrasonic Hatch Cover / Watertight Door Testing Operating Manual, Revision:0, Pages: 60, dated 3 November 2022,

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 05/Dec/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2023 Rules for Conditions of Classification - Part 1, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2023 Rules for Building and Classing Marine Vessel Rules: 4-1-1/3.3, 4-8-3/1.11.1

2023 Rules for Conditions of Classification - Light and High Speed Craft (Part 1), 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2023 Rules for Building and Classing High Speed Craft: 4-1-1/3.3, 4-6-1/15

2023 Rules for Conditions of Classification, Offshore Units and Structures (Part 1), 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2023 Rules for Building and Classing Mobile Offshore Units: 4-3-1/15

2023 Rules for Building and Classing Facilities on Offshore Installation: 1-6-3, 3-6/Table 1A & 1B

International Standards

NA

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in dark ink, appearing to read "Joseph W. Wilson".

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 01-Feb-2024 8:51

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 is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. 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.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

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.

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.