



CERTIFICATE NUMBER
15-LD1410479-1-PDA

DATE
15 Mar 2016

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
CMP PRODUCTS LTD.

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.

Product: **Cable, Glands and Accessories**

Model: **TC, TMC2, TMC2X**

This Product Design Assessment (PDA) Certificate 15-LD1410479-1-PDA, dated 15/Mar/2016 remains valid until 09/Sep/2020 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.

AMERICAN BUREAU OF SHIPPING

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).

CMP PRODUCTS LTD.

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Web: www.cmp-products.com

Tier: 3 - Type Approved, unit certification not required TC

Product: Cable, Glands and Accessories**Model:** TC, TMC2, TMC2X**Intended Service:**

For use on ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.

Description:

Cable Glands Certified for Flame Proof, Increased Safety & Dust

Model TC: The devices are designed to be threaded into suitably certified enclosures to permit the entry of unarmored cables.

Model TMC2: The devices are designed to be threaded into suitably certified enclosures to permit the entry of metal clad (MC) cables.

Model TMC2X: The devices are designed to be threaded into suitably certified enclosures to permit the entry of metal clad (MC) cables.

Rating:

Sizes : ½" to 4"

Hazardous Area:

Series TC and TCCG

Class I, Div. 2, Groups A, B, C, D; Class II, Div. 2, Groups E, F, and G; Class III, Div. 2; Encl. Type 4X. Ex e; Class I, Zone 1, AEx e; IECEX: Ex d IIC/ Ex e IIC Gb, Ex ta IIIC Da; Continuous Operating Temperature: -60°C to +110°C.

Series TMC2:

Class I, Div 2, Groups A, B, C, D; Class II, Div 1 and 2, Groups E, F, and G; Class III, Div 1 and 2; Encl. Type 4X. Ex e II; Class I, Zone 1, AEx e II; AEx ta IIC: IECEX: Ex e IIC Gb, Ex ta IIIC Da; Continuous Operating Temperature: -60°C to +110°C.

Series TMC2X:

Class I, Div 1 and 2, Groups A, B, C, D; Class II, Div 1 and 2, Groups E, F, and G; Class III, Div 1 and 2; Encl. Type 4X. Ex d IIC; Ex e II: Class I, Zone 1, AEx d IIC; AEx e II; AEx ta IIC; IECEX: Ex d IIC/ Ex e IIC Gb, Ex ta IIIC Da; Continuous Operating Temperature: -60°C to +85°C.

Ingress Protection: Nema 4X & IP 66/67/68.

See attached "pdf" for additional details.

Service Restriction:

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.

The restriction for the products are according to the requirement of "Notes" in CSA certificates (2194053,2220601) and "Condition of Certification" in IECEX Sira Certificates (09.0042X, 09.0068X, 09.0069X).

Comments:

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

Notes/Drawing/Documentation:

Drawing No. 2194053, Certificate of compliance, Revision: -, Pages: 1

Drawing No. 2220601, Certificate of compliance, Revision: -, Pages: 1

Drawing No. CMP_CSA-US_Certificate_2194053_Type_TMC2_TMC2X ed 2 supplement, CMP_CSA-US_Certificate_2194053_Type_TMC2_TMC2X ed 2 supplement, Revision: -, Pages: -

Drawing No. IECEX SIR 09.0042x, IECEX CERTIFICATE OF CONFORMITY, Revision: -, Pages: 1

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Drawing No. IECEX SIR 09.0068x, IECEX CERTIFICATE OF CONFORMITY, Revision: -, Pages: 1
Drawing No. IECEX SIR 09.0069x, IECEX CERTIFICATE OF CONFORMITY, Revision: -, Pages: 1
Drawing No. TC Technical Data Sheet - April 14 - Issue 6, TC Technical Data Sheet - April 14 - Issue 6, Revision: -, Pages: -

Terms of Validity:

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STANDARDS**ABS Rules:**

- Steel Vessel Rules (2016): 1-1-4/7.7, 1-1-A3&A4; 4-8-3/1.7, 4-8-3/13, 4-8-4/27.5
- Steel Vessels Under 90 Meters (295 Feet) in Length (2016): 1-1-4/7.7, 1-1-A3&A4; 4-6-1/11, 4-6-1/3.17, Ex ia, 4-6-3/11.1.1(a)
- Facilities on Offshore Installations (2016): 1-1-4/9.7, 1-1-A2&A3;
- Offshore Support Vessels (2016): 1-1-4/7.7, 1-1-A3&A4, 4-8-3/1.7, 4-8-3/13, 4-8-4/29.5
- Mobile Offshore Drilling Units (2016): 1-1-4/9.7, 1-1-A2&A3, 6-1-1/9, 6-1-1/13; 4.3.1/11, 4-3-1/3.17
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2016): 1-1-4/7.7, 1-1-A3&A4; 4-5-1/13, 4-5-1/3.17, 4-5-3/11.1.1 (a)
- High Speed Crafts (2016): 1-1-4/11.9, 1-1-A2&A3; 4-6-1/11, 4-6-1/3.17, 4-6-3/9.1.1(a)
- Steel Barge Rules (2016): 1-1-4/7.9, 1-1-A3&A4; 4-1-3/5.7, 5-2-3/ 7.13

National:

CAN/CSA-C22.2 No 0-10, 18-04 , 25- M1996, 30-M1986, 174-M1984, 94-M91, CAN/CSA-C22.2 60079-0:07, 1:07, 7:07, CAN/CSA 61241-1-1
ANSI/UL 50 Ed 11:1995, 514B Ed 5, 2225 Ed 4:2013, 60079-0:07, 7:07,

International:

TC Cable Glands: IEC 60079-0:2011, 60079-1:2007, 60079-7:2006, 61241-1:2004
TMC2 Cable Glands: IEC 60079-0:2011, 60079-7:2006, 61241-1:2004
TMC2X Cable Glands: IEC 60079-0:2011, 60079-1:2007, 60079-7:2006, 60079-31:2013

Government:

NA

EUMED:

NA

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OTHERS:

NA

TC