



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

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 19/MAY/2020. 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 26/JAN/2020 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.

Product Name: Cryogenic Valve

Model Name(s): Cryogenic manual and actuated Globe Valves, Cryogenic lift and swing Check Valves.

Presented to:

PRESIDENT ENGINEERING GROUP LTD, T/A CONFLOW AND BESTOBELL
PRESIDENT PARK
PRESIDENT ROAD
United Kingdom

Intended Service:

LNG/ LPG Cryogenic service for Marine and Offshore applications.

Description:

Stainless Steel flanged or butt welded valves with metal to metal seating. Manual and actuated globe valves are with extension as per manufacturer's drawings. Material: Body - SS ASTM A351 CF3M(buttwelded), CF8M(Flanged) Stem - SS BSEN 10088-3 1.4401 (316) Disc - SS BSEN 10088-3 1.4401 (316) Gasket - SS 316 Reinforced Graphite Cover - SS ASTM A351 CF8M / SS BSEN 10088-3 1.4401 (316L) Loose Flange - SS ASTM A351 CF8M Tube - SS ASTM A312 TP316L Gland Housing - SS BSEN 10088-3 1.4401 (316L) For swing check valve only DN 350 has metal to metal seat. disc and seat is made of SS ASTM A351 CF8M and sealing ring is PTFE.

Tier:

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Ratings:

Design temperature: -196 deg C to +80 deg C Type; Design Press.(bar); Size(DN)are as below: Manual globe valve: 50; 15, 25, 40, 50, 65, 80, 100, 200; Actuated globe valve: 10; 25, 40, 50, 65, 80, 100, 200, 300, 350; Check valve, lift: 10; 25, 40, 50, 65, 80, 200; Check valve, swing: 10; 25, 50, 65, 80,100, 150, 200, 250, 350;

Service Restrictions:

1) Unit Certification is required for the products intended to be used at a working temperature below -55 deg C and tests specified in section 5C-8-5/3.2.1 (b) of the

Comments: ABS Rules is to be carried out in the presence of the Surveyor as required.
 1) All valves are to be tested in accordance with manufacturer's test specifications - Q128, Q129, Q31 and Q46 as applicable. 2) All valves are to bear the trademark of the manufacturer legibly stamped or cast on the exterior of the valves as well as the pressure rating. 3) Copies of the certificate material test reports are to be made available to the attending Surveyor and are to be traceable to the material. 4) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes / Documentation: 1) Pressure & Cryogenic Test Reports witnessed by Class Society (IACS members) Surveyors. 2) Generic Drawing Numbers: CNM30**** to CNM80**** rev.A, CNM90**** to CNMB0**** rev.A, CNM30****PA**** to CNM80****PA**** rev.A, CNM90****PA**** to CNMB0****PA**** rev.A, CNME0**** to CNMH0**** rev.B, CGT30**** to CGT80**** rev.A, CGT90**** to CGTE0**** rev.A, CHC50**** to CHCB0**** rev.A, CHCD0**** to CHCH0**** rev.A, CNS**** rev.D, CNME0**** rev.A.

Term of Validity: This Product Design Assessment (PDA) Certificate 15-LD1307180-PDA, dated 27/Jan/2015 remains valid until 26/Jan/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.

ABS Rules: The Rules applicable to this assessment are : 2015 ABS Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.11, 5C-8- 5/2.4.4 and 5C-8-5/3.2.1 2015 ABS Offshore Units and Structures Rules 1-1-A2, 1-1-A3, 1-1-1-4/9.7

National Standards: BS ISO 21011 : 2008 , BS EN12567:2000

International Standards: IGC Code 1993.

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-LD1307180-PDA	28/JAN/2015	26/JAN/2020



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.