Certificate Number: 16-BK1500829-PDA 26/APR/2016



## 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 . 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 24/APR/2021 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: Valve, Ball Model Name(s): 115 Series Ball Valves

## Presented to:

HY-LOK CORPORATION #1467-1, SONGJEONG-DONG KANGSEO-KU Korea, Republic of

Intended Service: Hydraulic Fluid Systems, Compressed Air System, Lub. Oil and Fuel Oil System.

**Description:** 1. Light/Heavy Series Tube - L 1) Part No.:

BVDT-6L/8L/10L/12L/15L/18L/22L/28L/35L 2) Body: - Stainless Steel; ASTM A479/SS316, DIN17440 1.4571 - Carbon Steel; DIN 1651 9SMn28K, JIS G 4051 S20C 3) Ball & Ball Seats: 316 Stainless Steel & POM 2. Light/Heavy Series Tube - S 1) Part No.: BVDT-8S/10S/12S/14S/16S/20S/25S/30S/38S/ 2) Body: -

Stainless Steel; ASTM A479 SS 316, DIN17440 1.4571 - Carbon Steel; DIN 1651 9SMn28K, JIS G 4051 S20C 3) Ball & Ball Seats: 316 Stainless Steel & POM 3.

BSP Paralled 1) Part No.: BVDF-2G/4G/6G/8G/12G/16G/20G 2) Body: - Stainless Steel; ASTM A479 SS 316, DIN17440 1.4571 - Carbon Steel; DIN 1651 9SMn28K, JIS G 4051 S20C 3) Ball & Ball Seats: 316 Stainless Steel & POM 4. NPT 1) Part No.: BVDF-4N/6N/8N/12N/16N/20N 2) Body: - Stainless Steel; ASTM A479 SS 316, DIN17440 1.4571 - Carbon Steel; DIN 1651 9SMn28K, JIS G 4051

S20C 3) Ball & Ball Seats: 316 Stainless Steel & POM

Ratings: 1. Pressure rating: 160 bar / 315 bar / 400 bar / 500 bar 2. Temperature rating:

-18 to 100 degree C

**Service Restrictions:** 1. 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. 2. Limitations in 4-6-2/5.5.5(a) of the Rules are to be observed for

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taper-thread joints of Hydraulic systems for the steering gear, controllable pitch

propeller and propulsion or propulsion control. 3. Pipe joints are to be in

accordance with 4-6-2/5.5 of the Rules.

**Comments:** The Manufacturer has provided a declaration about the control of, or the lack of

Asbestos in this product. The valve body is to bear permanent indication of maker,

reference standard, material identity and pressure rating.

Notes / Documentation: This Product Design Assessment (PDA) is based on as follows: - Drawing No.

2015H14J01, 115 Series Ball Valves to DIN Standard - Burst test report (BK3051907) witnessed by ABS Surveyor dated 21 December 2015.

Term of Validity: This Product Design Assessment (PDA) Certificate 16-BK1500829-PDA, dated

25/Apr/2016 remains valid until 24/Apr/2021 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:** 2016 Steel Vessel Rules 1-1-4/7.7, 1-1-A3 & A4, 4-6-2/5.11, 4-6-2/5.15

National Standards: International Standards: Government Authority:

**EUMED:** Others:

 Model Certificate
 Model Certificate No
 Issue Date
 Expiry Date

 PDA
 16-BK1500829-PDA
 25/APR/2016
 24/APR/2021

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.