

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 21-2177986-PDA 19-Nov-2021 18-Nov-2026 Houston ESD - Piping

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

W & O SUPPLY INC. (HOUSTON)

8000 MARKET ST., SUITE 220, HOUSTON, TX, United States, 77029

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.

Valve, Cast Steel Gate
15011B, 15011C, and 15011 SS
2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 18/Nov/2026 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.

> American Bureau Of Shipping Gongin Les Yongjin Lee,Engineer/Consultant

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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

W & O SUPPLY INC. (HOUSTON) 8000 MARKET ST., SUITE 220 HOUSTON TX United States 77029 Telephone: 904-354-3800 Fax: 904-354-2529 Email: lisa.molinari@wosupply.com Web: www.wosupply.com

Tier: 2 - PDA Issued

Product:Valve, Cast Steel GateModel:15011B, 15011C, and 15011 SSEndorsements:

Intended Service:

Marine & Offshore Applications. For piping systems where cast steel ANSI Class 150 valves are acceptable.

Description:

Cast steel outside stem & yoke (OS &Y) valves, Class 150, Aluminum Bronze, Stainless Steel, and CR13/HF Trims

Rating:

Cast steel valve sizes: 2" to 24" Pressure rating: ANSI 150 Class Body Material Spec: ASTM A216-WCB

Service Restriction:

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. Valves intended for installation on the side shell at or below the deepest load waterline, including those at the sea chests, are to be hydrostatically tested in the presence of the Surveyor, before installation, to a pressure of at least 5bar. See 4-6-2/7.3.2 of ABS Marine Vessel Rules.

Comments:

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

2. Valves are designed and tested in accordance with ANSI B16.34, and API 600.

3. The manufacturer of valves is to guarantee that the valves are constructed to the standard and conforming to the identifications to which it is marked. The manufacturer is to guarantee also that the valves have been tested before shipment to the pressure required by the pressure rating of the valves. The certificate of test is to be submitted upon request as indicated in 4-6-2/5.11.4 of ABS Marine Vessel Rules.

4. All valves are to bear the trademark of the Manufacturer legibly stamped or cast on the exterior of the valves and also the primary pressure rating at which the manufacturer guarantees the valves to meet the requirements of the Standard.

Notes/Drawing/Documentation:

Drawing No. 15011B 14-16 G1RA121, Revision 1; Drawing No. 15011B 18-24 G1RA121, Revision 0; Drawing No. 15011B 2-12 G1RA121, Revision 2; Drawing No. 15011C 14-16 G1RA8, Revision 1; Drawing No. 15011C 18-24 G1RA8, Revision 0; Drawing No. 15011C 2-12 G1RA8, Revision 2

Terms of Validity:

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This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for

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Tier: 2 - PDA Issued

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.

STANDARDS

ABS Rules:

The Rules for Conditions of Classification, 2021 Marine Vessel Rules:1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the followings; 2021 Rules for Building and Classing Marine Vessel Rules: 4-6-2/5.11 & 7.3

The Rules for Conditions of Classification - Offshore Units and Structures, 2021 Mobile Offshore Unit Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3 which covers the following: 2021 Rules for Building and Classing Mobile Offshore Units: 4-2-2/9

National: ASME B16.34 (2020) API 600 (2021)

International: NA

Government: NA

EUMED: NA

OTHERS:

NA