



Confirmation of Product Type Approval

Company Name: CHANGZHOU LK VALVES CO LTD

Address: BUILDING 16, XIN YU LOGISTICS PARKRENMIN ROAD NO. 8YAOGUAN, WUJIN China

Product: Valve, Butterfly

Model(s): Butterfly valve, Wafer type, Lug type, Double Flange Type

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	20-1990136-PDA-DUP	20-MAY-2020	19-MAY-2025
Manufacturing Assessment (MA)	20-4417203	26-AUG-2020	25-AUG-2025
Product Quality Assurance (PQA)	NA	NA	NA

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Intended Service

Salt and fresh water, ballast, bilge, sanitary, cargo oil, fuel oil, lubricating oil, compressed air, brine piping systems for ships and offshore installations in association with Service Restrictions as listed below.

Description

Wafer Type, Product Group 700703, 700903, 701703, 701903, 702703, 702903, 700702, 700902, 701702, 701902, 702702, 702902, 700701, 700901, 701701, 701901, 702701, 702901

Lug Type, Product Group 710703, 710903, 711703, 711903, 712703, 712903, 710702, 710902, 711702, 711902, 712702, 712902, 710701, 710901, 711701, 711901, 712701, 712901, 710700, 710900, 711700, 711900, 712700, 712900

Double Flange Type, Product Group 730702, 730902, 731702, 731902, 732702, 732902, 730702, 730902, 731702, 731902, 732702, 732902, 730701, 730901, 731701, 731901, 732701, 732901

Materials:

1. Body: GGG40(Nodular Cast Iron)
2. Material Lining: NBR/EPDM/FKM
3. Material Disc: AB2/AISI316
4. Material Stem: AISI316/AISI431

Ratings

Wafer Type, Product Group 700703, 700903, 701703, 701903, 702703, 702903, Sizes: DN40-300, Pressure Rating: PN25;

Wafer Type, Product Group 700702, 700902, 701702, 701902, 702702, 702902, Sizes: DN40-300, Pressure Rating: PN16;

Wafer Type, Product Group 700701, 700901, 701701, 701901, 702701, 702901, Sizes: DN200-600, Pressure Rating: PN10;

Temperature rating:NBR: -35°C to 95°C,EPDM: -40°C to 110°C,FKM/FPM: -30°C to 180°C

Lug Type, Product Group 710703, 710903, 711703, 711903, 712703, 712903, Sizes: DN40-300, Pressure Rating: PN25;

Lug Type, Product Group 710702, 710902, 711702, 711902, 712702,712902, Sizes: DN40-300, Pressure Rating: PN16;

Lug Type, Product Group 710701, 710901, 711701, 711901, 712701, 712901, Sizes: DN200-800, Pressure Rating: PN10;

Lug Type, Product Group 710700, 710900, 711700, 711900, 712700, 712900, Sizes: DN700-800, Pressure Rating: PN6;

Temperature rating:NBR: -35°C to 95°C,EPDM: -40°C to 110°C,FKM/FPM: -30°C to 180°C

Double Flange Type, Product Group 730702, 730902, 731702, 731902, 732702, 732902, Sizes: DN40-300, Pressure Rating: PN16;

Double Flange Type, Product Group 730702, 730902, 731702, 731902, 732702, 732902, Sizes: DN350-500, Pressure Rating: PN16;

Double Flange Type, Product Group 730701, 730901, 731701, 731901, 732701, 732901, Sizes: DN200-500, Pressure Rating: PN10.

Temperature rating:NBR: -35°C to 95°C,EPDM: -40°C to 110°C,FKM/FPM: -30°C to 180°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) As per section 4-6-2/9.13.2(ii) of ABS Marine Vessel Rules, wafer-type butterfly valves are not acceptable as shell valves. Butterfly valves with lugs, however, may be accepted. The connection arrangement for shell valves is to ensure that the valve remains in position should the inboard piping be removed.

3) As per section 4-6-2/7.3.2 of ABS Marine Vessel Rules, all valves intended for installation on shipside shell at or below the deepest load waterline, including those at the sea chests, are to be hydrostatically tested in the presence of an ABS Surveyor, before installation, to a pressure of at least 5 bar.

4) As per section 4-6-2/5.11.3(d) of ABS Marine Vessel Rules, all valves of classes I and II piping systems having nominal diameters exceeding 50 mm are to have flanged or welded ends.

5) As per section 4-6-2/9.15 of ABS Marine Vessel Rules When piping contains fluids having flash point of 60°C (140°F) or less OR when piping is routed through hazardous areas, Wafer-style valves with non-conductive (e.g., polytetrafluoroethylene PTFE) gaskets seals are to be earthed (grounded) to the hull such that the resistance between any point on the piping and the hull (across joints, pipe to hull) does not exceed 1 mega-ohm.

6) The valves have not been subjected to a fire test and should not be used in fire mains (all locations) , fuel and lube oil tank isolation valves, where the valves are subject to a static head of flammable liquid.

7) Vessel's specific piping plans are to be submitted for verification of the suitability of the materials for the specific piping system.

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. All valves are to bear permanent identification, such as manufacturer's name or trademark, standard of compliance, material identity, pressure rating, etc., as required by the standard of compliance or the manufacturer's specification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the component, and are to serve as a permanent means of identification of the component throughout its service life

Notes, Drawings and Documentation

Drawing No. 5-794.40, Burst Pressure Test of Valve Bodies for LK Valves Butterfly Valves.

Drawing No. 34530, Butterfly Valve DN150 Lug, Revision: A.

Drawing No. 34530, Butterfly Valve DN150 Lug, Revision: D.

Drawing No. 34531, Butterfly Valve DN150 Wafer, Revision: A.

Drawing No. 34531, Butterfly Valve DN150 Wafer, Revision: C.

Drawing No. 34532, Butterfly Valve - Double Flange, Revision: A.

Drawing No. 34570, Configuration Chart Butterfly.

Drawing No. FORM01, Type of Request - ABS Type Approval Application.

Drawing No. GB 1883576-X, Certificate of Manufacturing Assessment.

Drawing No. NX1781924-X1, Certificate of Manufacturing Assessment.

Butterfly Valve Data Sheets

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 19/May/2025 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

2020 ABS Marine Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.11.

2020 ABS Rules for Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3.4-2-2/9.

International Standards

EN 558: 2017 Series 20 (face to face).

ISO 5211:2017 (top flange)

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: 13-Sep-2020 8:44

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.