Certificate No: LR23372206TA
Issue Date: 23/01/2023
Expiry Date: 22/01/2028

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**EBRO ARMATUREN**
Address	Gebr. Broeer GmbH, Karlstrasse 8, Hagen, 58013, Germany
Type	Butterfly Valves
Description	Concentric disc, soft sealing, lug, wafer or double flanged type butterfly valves for installation between DIN/ANSI flanges
Trade Name	Z 011 A (Wafer Type), Z 014 A (Wafer Lug Type), F 012 A/SH, F012 K1 (Double Flange Type)
Application	For installation on ships and offshore installations classed or intended for Classification with Lloyd's Register allowable systems. They have to be installed to the attending surveyor's satisfaction for: 1. Sea and fresh water systems including ship side valves. 2. Water ballast 3. Cargo Lines as"in-line" valves on oil and chemical tankers and on liquefied gas carriers(depending on pressure, temperature, medium and material) 4. As "in-line" valves in lubricating or oil fuel piping systems in low fire risk compartments of cargo vessels 5. As "in-line" valves for hydraulic deck machinery 6. Bilge suctions (in association with a metal non return valve) in low fire risk compartments of cargo vessels only 7. As pump suction valves from the main bilge line only where the valve is

Downloaded Copy

Torsten Schroeder

Engineering - Piping - Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Type Approval Certificate

located in the immediate vicinity of the pump. The valve is to be fitted in conjunction with a metal non-return valve, which is to be on the bilge main side of the butterfly valve.

8. Sanitary, black and grey water
9. Inert gas
10. Air piping (Except as stop valves for air receivers) having a working pressure not greater than 7 bar.

Specified Standard

Lloyd's Register Rules and Regulations for the Classification of Ships, 2023
DIN EN ISO 5211, DIN EN 558, ISO 5752

Ratings

Type	Nom. Diam.(mm)
Z 011 A	DN 32 - 600
Z 014 A	DN 32 - 600
F 012 A/SH	DN 50 - 1000
F 012 K1	DN 150 - 1000

Nom. Press. (bar): PN 6/ 10/ 16

Temp.Range : -20°C to 200°C
(depending on pressure, medium and material)

Other Conditions

Only ductile materials have to be used for systems containing flammable liquids above 7 bar or ship side valves.

Downloaded Copy

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Certificate No: LR23372206TA
Issue Date: 23/01/2023
Expiry Date: 22/01/2028

Type Approval Certificate

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 97/20034(E4)

The Design Appraisal Document ENS 21008-08, Issue No. 3 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Downloaded Copy

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.