Certificate No: LR2007556TA
Issue Date: 29/08/2019
Expiry Date: 28/08/2024

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	**Sinpro (Dezhou) Industries Co., Ltd.**
Address	No. 1, Industrial Park Road, Ningjin County, Shandong Province, 253400, China
Place of Production	Sinpro (Dezhou) Industries Co., Ltd. No. 1, Industrial Park Road, Ningjin County, Shandong Province, 253400, China
Type	Valves - General
Description	Check Valves
Trade Name	"AFA" Dual Flap Wafer type / "AFA" Single Swing Wafer type
Application	Marine and Offshore applications subject to the valves complying with LR Rules and Regulations for the particular service.
Specified Standard	LR Rules and Regulations for the Classification of Ships, July 2019 LR Type Approval System Test Specification Number 2, Chapter 8, Appendix 7 - Valves BS EN12266-1 : 2003 ISO 5208 : 2008 BS EN1561 BS EN1563 ASTM A431

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Qing Dong

Specialist to Lloyd's Register Classification Society (China) Co Ltd
A member of the Lloyd's Register group

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Ratings

Dual flap Wafer type Check Valve

Nominal Diameter (mm):	DN40~DN600
Maximum Working Pressure (bar):	10 (DN40~DN600) 16 (DN40~DN300)
Maximum Working Temperature (˚C):	110 (EPDM) 80(NBR)
Materials for Valve Body:	Grey Cast Iron EN-GJL-250 Spheroidal Graphite Cast Iron EN-GJS-400

Single Swing Wafer type Check Valve

Nominal Diameter (mm):	DN32~DN600
Maximum Working Pressure (bar):	10 (DN32~DN600) 16 (DN32~DN300)
Maximum Working Temperature (˚C):	110 (EPDM) 80(NBR)
Materials for Valve Body:	Stainless Steel CF8M

Other Conditions

1. Materials for metallic castings and forgings of Class I and II piping systems are to be produced at a works approved by LR and are to be tested in accordance with the Rules for Materials.
2. Valves are to be used within their specified pressure and temperature rating for all normal operating conditions, and are to be suitable for the intended purpose.
3. The materials used for valves are to be suitable for the medium and the service for which the piping is intended onboard. The application limitation and scope to cast iron valves are to be in accordance with the requirements of LR Rules. Part 5, Chapter 12, Section 4 refers.
4. The valves are not to be used in spaces where leakage of failure caused by fire could result in fire spread, flooding or the loss of an essential service.
5. Each valve is to be tested at the manufacture's production facility to a hydrostatic pressure not less than 1.5 times the rated pressure of the valves.
6. The valve type selection and installation onboard is to follow manufacturer's instructions.

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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 Classification Society (China) Co Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2007556TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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