

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 LR Type Approval System.

This certificate is issued to:

PRODUCER	Sinpro (Dezhou) Industries Co., Ltd.
PLACE OF PRODUCTION	No. 1, Industrial Park Road Ningjin Town 253400 Dezhou City Shandong Province People's Republic of China
DESCRIPTION	Check Valve
TYPE	"AFA" Dual flap Wafer type "AFA" Single Swing Wafer type
APPLICATION	Marine, 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 2013 BS EN12266-1: 2003 ISO 5208: 2008
RATINGS	Dual flap Wafer type Check Valve Nominal Size (mm): DN40-DN600 Maximum Working Pressure (Bar): 10 (DN40-DN600), 16 (DN40-DN300) Maximum Working Temperature (°C): EPDM: 110; NBR: 80 Materials for Valve Body: Grey Cast Iron EN-GJL-250 (BS EN1561) or equal Spheroidal Graphite Cast Iron EN-GJS-400 (BS EN1563) or equal

Certificate No.	14/80039
Issue Date	29 August 2014
Expiry Date	28 August 2019
Sheet	1 of 2



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Lloyd's Register Classification Society (China) Co., Ltd.

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Single Swing Wafer type Check Valve

Nominal Size (mm): DN32-DN600
Maximum Working Pressure (Bar): 10 (DN32-DN600), 16 (DN32-DN300)
Maximum Working Temperature (°C): EPDM: 110; NBR: 80
Materials for Valve Body: Stainless steel CF8M (ASTM A351) or equal

OTHER CONDITIONS

For application on a LR classed vessel, the following conditions to be complied with:-

1. Materials for ferrous castings and forgings of Class I, II piping systems are to be produced at a works approved by LR and are in general 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 on-board. The application limitation and scope to cast iron valves are to be in accordance with the requirements of Rules. Part 5, Chapter 12, Section 4 refers.
4. The valves are not to be used in spaces where leakage or 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 manufacturer's production facility to a hydrostatic pressure not less than 1.5 times the rated pressure of the valve.
6. The valve type selection and installation on-board is to follow manufacturer's instructions.

"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 of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. STS/TA/141670/B Issue number 0 dated 29 August 2014 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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