Certificate No: LR2004620TA
Issue Date: 21/04/2020
Expiry Date: 20/04/2025

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	**Dong Yang S & T**
Address	69 Najeon-ro 161beon-gilSangrim-myunSaengnim-myeon Gimhae-si, Gyeongnam, 50802, Korea, Republic of
Place of Production	Dong Yang S & T 69 Najeon-ro 161beon-gilSangrim-myunSaengnim-myeon Gimhae-si, Gyeongnam, 50802, Korea, Republic of
Type	Rubber Compensator
Description	Low convolution rubber bellows type pipe compensator with wire braid reinforcement
Trade Name	DYV-W DYV-WR
Application	Marine and Offshore Piping Systems: • Engine lubricating oil systems • Fresh water cooling systems • Fresh water pumping systems • Ballast water lines in closed duct keels • Engine sea water cooling systems • Domestic salt/fresh water pumping systems • Air conditioning systems and similar services
Specified Standard	Part 5, Chapters 12 & 13 of Lloyd's Register's Rules and Regulations for the Classification of Ships, July 2019

Downloaded Copy

Da-Young Kang

Senior Specialist to Lloyd's Register Asia
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

Fire Resistant Testing according to ISO 15540 & ISO 15541

Ratings

DYV-W

Nominal Dia.(mm)	Maximum working pressure (MPa)	Burst test pressure (MPa)
25 to 200	1.6	6.4
250 to 400	1.0	4.0

DYV-WR

Nominal Dia.(mm)	Maximum working pressure (MPa)	Burst test pressure (MPa)
25 to 200	1.6	6.4
250 to 400	1.0	4.0

Service temperature range (°C) : +100

Other Conditions

Where the rubber compensators are intended to be installed on a ship classed or intended to be classed with Lloyd's Register (LR), the following conditions and advice are applicable:

1) The positions of compensators are to be clearly shown on any plans of piping systems and arrangements which are required to be submitted for classification approval.
2) It should be noted that it is LR's policy that where the rubber compensators are used in essential systems in the engine room, they are to be held to a minimum.
3) Where necessary, the compensators are to be protected against over extension and compression.
4) Type Approval does not eliminate the need for normal inspection survey procedures required by the Rules and Regulation.

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.

Certificate No: LR2004620TA
Issue Date: 21/04/2020
Expiry Date: 20/04/2025

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 Asia of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2004620TA 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.