Certificate No: LR25102987TA
Issue Date: 15/05/2025
Expiry Date: 14/05/2030

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	**YOUNGNAM METAL CO.,LTD**
Address	12-3, Jillye-ro 74beon-gil, Jillye-myeon, Gimhae-si, Gyeongnam, 50874, South Korea
Place of Production	YOUNGNAM METAL CO.,LTD 12-3, Jillye-ro 74beon-gil, Jillye-myeon, Gimhae-si, Gyeongnam, 50874, South Korea
Type	Pipe Couplings
Description	RCH-S: Repair Clamp Hinge Standard Type RCH-L: Repair Clamp Hinge Long Type RCH-E: Repair Clamp Hinge Elbow Type RCD-E: Repair Clamp Double Elbow Type
Trade Name	Pipe coupling for metallic pipes – Slip type
Application	The mechanical joints can be used the following piping systems in accordance with Part 5, Chapter 12, Section 2, table 12.2.8 of Lloyd's Register (LR) Rules and Regulations for the Classification of Ships. Marine piping systems for services and locations listed for non-approved fire resistance types in Part 5, Chapter 12, Section 2, Table 12.2.8 of Lloyd's Register (LR) Rules and Regulations for the Classification of Ships.
Specified Standard	LR Rules and Regulations for the Classification of Ships, Part 5, Chapter 12,

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Da-Young Kang

Engineering Piping - Senior Specialist to
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July 2024
IACS UR P2.11 IACS Req.2001/Rev6. 2023

Ratings

RCH-S/L

Pressure Range	Nominal Diameter	Working Pressure (MPa)
	15A – 25A	1.4
	32A – 40A	1.2
	50A – 65A	1.0
	80A – 150A	0.8
	200A – 250A	0.7
	300A – 350A	0.6
	400A – 450A	0.4
	500A	0.3

RCH-E

Pressure Range	Nominal Diameter	Working Pressure (MPa)
	15A	1.1
	20A - 40A	0.8
	50A –150A	0.7

RCD-E

Pressure Range	Nominal Diameter	Working Pressure (MPa)
	200A-250A	0.6
	300A-400A	0.5
	450A	0.4
	500A	0.3

Temperature Range	EPDM	-30°C to +100 °C
	NBR	-20 °C to +80 °C
	SILICONE	-50 °C to +190 °C
	VITON	-30 °C to +220 °C

Materials are to be suitable for intended service at the pressure-temperature

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ratings.

Other Conditions

Where the joints are intended to be installed on a ship classed with LR, the following conditions of acceptance will be applicable: -

1)
The joints are to be installed and tested in accordance with Part 5, Chapter 13, Section 2 of the Rules and Regulations for the Classification of Ships in so far as applicable.2)
The joints are to be made, installed and tested to appropriate pipe class requirements in accordance with Part 5, Chapter 12 of the Rules and Regulations for the Classification of Ships in so far as applicable.3)
The joints made in austenitic stainless-steel material SUS304 are to be excluded from sea water services (see Part 5, Chapter 12, Section 11.3.4 of the Rules and Regulations for the Classification of Ships).4)
In all cases the materials are to be suitable for their intended service conditions.

5) Generally, slip-on joints are not to be used in pipelines in cargo holds, tanks, and other spaces which are not easily accessible. Application of these joints inside tanks may only be accepted where the medium conveyed is the same as that in the tanks.

6) Usage of slip type slip-on joints as the main means of pipe connection is not permitted except for cases where compensation of axial pipe deformation is necessary.

7) Restrained slip-on joints are permitted in steam pipes with a design pressure of 1 MPa or less on the weather decks of oil and chemical tankers to accommodate axial pipe movement, *see* Pt 5, Ch 13, 2.7 Provision for expansion.

8) Mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the ship's side below the bulkhead deck of passenger ships and freeboard deck of cargo ships or tanks containing flammable fluids.

9) Slip-on joints are not accepted inside machinery spaces of category A or accommodation spaces. They may be accepted in other machinery spaces provided the joints are located in easily visible and accessible positions (refer to MSC/Circ.734).

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

Previous Version: LR2006670TA

The Design Appraisal Document LR25102987TA_DAD and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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