Certificate No: LR26312448TA
Issue Date: 08/06/2026
Expiry Date: 07/06/2031

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	**SEWON IND CO LTD**
Address	59 Hwangsagongdan ro, Beopsu-myeon Haman gun, Gyeongsangnam do, 52055, South Korea
Type	Slip type expansion joints with resilient seal gland
Description	Sleeve type expansion joint
Application	Marine piping systems: Steam and Condensate system • For joints with asbestos free • For services and locations listed in Part 5, Chapter 12, Table12.2.7 where approved fire-resistant types are not required. • Shall not use where fatigue, severe erosion or crevice corrosion is expected to occur • Shall not use where the internal pressure of may fall below atmospheric pressure
Specified Standard	LR Rules and Regulations for the Classification of Ships (July 2025), Part 5, Chapter 12, LR Test Specification No.2, IACS UR P2.1 (Rev.3 October 2023)
Ratings	Max. working pressure: 5 Kg/cm² Max. working Temperature: 170°C Nominal Pipe Diameter: 40A~300A Max. working pressure: 10 Kg/cm² Max. working Temperature: 300°C

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Mandar Ojale

Engineering Piping - Specialist to Lloyd's Register Marine and Offshore India LLP
A member of the Lloyd's Register group

Units 1702-1704, 17th Floor (Level-13), Building Q2, Aurum Q Parc; Gen 4/1 TTC, Thane-Belapur Road, Ghansoli, Navi Mumbai, 400710, India

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Nominal Pipe Diameter (N.D): 40A~350A

Other Conditions

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

- The positions of joints are to be indicated on individual diagrammatic plans of piping systems which are submitted for approval or for consideration.
- The joints are to be installed and tested in accordance with Part 5, Chapter 13, Section 2 of the Rules and Regulation for the Classification of ships in so far as applicable.
- 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.
- In all cases the materials are to be suitable for their intended service conditions.
- 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.
- 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.
- 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).
- 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.
- 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.

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- Where applicable, bonding for the control of static electricity is to be provided to comply with part 6, Chapter 2 of the Rules and Regulations for the Classification of Ships.

The dimensions and materials of flanges, gaskets and bolting, and the pressure-temperature rating of the bolted flanges in pressure pipelines, are to be in accordance with national or other established standards.

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 Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR21168735TA

The Design Appraisal Document LR26312448TA_DAD and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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