



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA10022M

This is to certify that the undernoted products have been approved in accordance with the relevant requirements of "Rules for the Survey and Construction of Steel Ships" and "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use".

This certificate is issued to

Manufacturer:	ELAFLEX-Gummi Ehlers GmbH
Product:	Rubber Expansion Joints
Kind of connections/ Type designations:	ERV-GS
Approval No.:	99 FV 401B
Valid until:	15 December 2014

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 15 January 2010.

T. Narisawa
General Manager
Machinery Department

Attached sheet to the Certificate No.TA10022M

• **Particulars and conditions :**

The joints are accepted as flame resistant rubber joints and can be used for short joint of the piping systems in engine room.

Type : ERV-GS

Nominal Diameter (DN) : 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350 and 400

Max. Working Pressure : 1.0 MPa

Max. Operating Temp : 100 °C

Kind of fluid : Fuel oil, Lubricating oil, Sea water, Fresh water, Air, Hydraulic oil,
Waste oil, Mist gas, Inert gas

Material : Liner : NBR,

Reinforcement: Steel wire cord, CR rubberized

Cover : CR

Flanges : Carbon steel, zinc plated or hot galvanized;
Stainless steel

• **Type approval tests carried out:**

Pressure test, Burst test, Hydraulic impulse test and Fire endurance test in accordance with ISO 15540

• **Test :**

The joints used for piping belonging to Group II defined by the requirements 12.1.3, Chapt.12, Part D of the Rules are to be subjected to hydraulic test in the presence of the Society's surveyor in accordance with the requirements 12.6.1, Chapt.12, Part D of the Rules.

• **Notice :**

Any significant changes in design or construction of the above items may render this certificate invalid.

- The End -