

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000BT1
Revision no.:
0

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the **Materials other than steel for pipes conveying oil or fuel oil: — flexible pipe assemblies and compensators**

with type designation(s)

HKS-Gummikompensator; G 00XX / 130 / 016 / HKS-GS

issued to

**HKS GmbH industrieller Hersteller von Kompensatoren und
Schläuchen
Rostock, Germany**

is found to comply with the Implementing Regulation (EU) 2025/1533 for
Item no. **MED/3.15c (Row 1 of 1)**

according to the following requirements:

SOLAS 74 Reg. II-2/4, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.36(63)-(1994 HSC Code) 10, IMO Res. MSC.97(73)-(2000 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 10, IMO MSC/Circ.1120, SOLAS 74 Reg. X/3

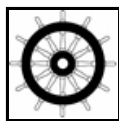
Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2025-12-11**

Expiry date: **2030-12-10**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Christian Kaemmer



Notified Body
no.: **0098**

for **DNV SE**

.....
Christine Mydlak-Röder
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Rubber compensators of type HKS-GS consisting of NBR (Nitrile) rubber bellows with zinc plated steel wire cord reinforcement and flanges made of carbon steel S235JR, zinc plated, ready for installation.

Design of ERV-GS Rubber expansion joint with bellow, flanges acc. to drawing 4-A-12185-GS_C.

Design of ERV-GS-VSD Rubber expansion joint with additional inner support ring acc. to drawing 4-A-12186-GS_C.

Design of ERV-GS -ZS Rubber expansion joint with additional tie-rods acc. to drawing 4-A-12187-GS_C.

Application/Limitation

Sizes: DN32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 500.

The rubber compensators are suitable for lubricating oil and fresh water the following operating data:

Lubricating oil / 10 bar / 80°C max.

Fresh water / 6 bar / 90°C max.

Type Examination documentation

Tests carried out

Fire resistance test acc. to ISO 15540 / ISO 15541.

Marking of product

Please see Appendix: Marking of product

APPENDIX

Marking of product

Certificate no.:
MEDB0000BT1
 Revision no.:
0

Scope	Example
Manufacturers name or short sign	HKS
Type, Size	G 0040 / 130 / 016 / HKS-GS
Mark of conformity ¹	 0098/2025

Note

¹ may only be affixed to the type approved equipment, if the associated production-surveillance module (D, E or F) is valid.