

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL 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

with type designation(s)
S032/016/B, S050/016/B

Issued to

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

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2018/773,**

**item No. MED/3.15c. SOLAS 74 as amended, Regulation II-2/4 & X/3 and 2000 HSC Code 7 &
10 and IMO MSC/Circ.1120**

Manufacturers authorised representative

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

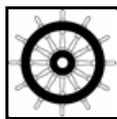
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-08-29**.

Issued at **Hamburg** on **2019-08-30**

DNV GL local station:
Hamburg

Approval Engineer:
Hagen Markus



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

Flame resistant PTFE hose assemblies with fire sleeve.

Technical data

Hose construction	
Inner tube	PTFE – Type R272 / R276
Reinforcement	Stainless steel wire braids
Cover	Fire sleeve Type 624
Hose end fittings	Flanges
Sizes	Assembly drawings
DN32	2906334-05dwg – S032/16/B-DN32/B-DN32-800
DN50	2906334-02dwg – S050/16/B-DN50/B-DN50-800
DN65	2906334-01dwg – S050/16/B-DN65/B-DN65-800
Design parameter	
Internal pressure	16 bar
Temperature range	-40°C° up to +180°C
Service parameter	
M.A.W.P.	8 bar
M.A.W.T.	150°C

Application/Limitation

Flexible pipe assemblies conveying oil or fuel oil.

Type Examination documentation

Assembly drawings

- 2906334-05dwg – S032/16/B-DN32/B-DN32-800, 2009-06-02
- 2906334-02dwg – S050/16/B-DN50/B-DN50-800, 2009-06-02
- 2906334-01dwg – S050/16/B-DN65/B-DN65-800, 2009-06-02

Test reports

- Fire resistance test reports issued by WTD71, Kiel: No.60/08, 61/08 issued by WTD71
- Pressure pulsation test report issued by TÜV SÜD – Automotive: 76238465.doc
- Pressure and burst pressure test report issued by HKS, 2009-10-12
- Legacy GL Approval ref. no.: 13-104945

Tests carried out

Fire resistance test acc. to ISO 15540/41

Job Id: **344.1-009259-1**
Certificate No: **MEDB000059N**

Marking of product

Scope	Example
Manufacturers name or short sign	HKS
Type, Size	S050 / 016 / B-DN50 / B-DN50 - 800
Mark of conformity	 0098/2018

End of certificate