

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)

HANSA-FLEX HD 100 acc. to DIN EN 853 - 1SN

Issued to

HANSA-FLEX AG
Bremen, 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

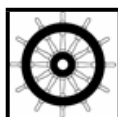
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-02-06**.

Issued at **Hamburg** on **2019-02-07**

DNV GL local station:
Bremerhaven

Approval Engineer:
Hagen Markus



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Hose design

According to EN 853 - 1 SN.

Inner tube	Oil-resistant synthetic rubber
Reinforcement	One high tensile steel wire braided inserts
Cover	Synthetic rubber with high temperature, ozone and weather resistance
Colour	Black
Size range	DN6 to DN51
Temperature range	- 40°C to + 100°C

Hose end fittings

Approved combination of hose and hose end fittings according to overview "Vom DNV GL Notified Body 0098 zugelassene MED Schlauch -und Armaturenkombinationen", issue date 2019-01-28

Maximum Allowable Working Pressure (M.A.W.P.)

Hose size DN	Identification	M.A.W.P. (bar)
06	HD 106	225
08	HD 108	215
10	HD 110	180
12	HD 113	160
16	HD 116	130
19	HD 120	105
25	HD 125	88
31	HD 132	63
38	HD 140	50
51	HD 150	40

Application/Limitation

Piping systems conveying oil or fuel.

Type Examination documentation

Tests carried out

Fire resistance tests according to ISO 15540/15541.

Marking of product

Job Id: **344.1-008885-1**
Certificate No: **MEDB00004W0**

For traceability to this certificate each hose assembly is to be marked on the hose and or on the hose end fitting at least with:

Scope	Example
Manufacturer's name or trademark	HANSA-FLEX
Type designation	HD116
M.A.W.P.	130bar
Hose size	DN16
Mark of Conformity according to Article 10 of the Council Directive (MED)	HF1007, 130bar, 01/19  0098 /19