DNV·GL

Certificate No:
MEDB0000624

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Materials other than steel for pipes conveying oil or fuel oil

with type designation(s)
1SN, 2SN, 1SC, 2SC, 4SH, 4SP, R13, Diamante, Power

Issued to
CAST S.p.A.
Volpiano, TO, Italy

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
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 **2025-03-01**.
Issued at **Høvik** on **2020-03-02**

DNV GL local station:
Italy/Malta CMC

Approval Engineer:
Adel Samiei

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **344.1-004330-2**
Certificate No: **MEDB0000624**

Product description

Nine types of hose assemblies:

1) Type 1SN: Synthetic rubber hose with one internal steel wire braid 100R1AT acc. to SAE J517 / 1SN acc. to EN 853.
2) Type 1SC: Synthetic rubber hose with one internal steel wire braid according to EN 857.
3) Type 2SN: Synthetic rubber hose with two internal steel wire braids 100R2AT acc. to SAE J517 / 2SN acc. to EN 853.
4) Type 2SC: Synthetic rubber hose with two internal steel wire braids according to EN 857
5) Power Type 2SC or 2SN-K: Substrate of synthetic rubber reinforced with two braids of high resistant steel, covered with black synthetic rubber
6) Diamante Type EN 857 2SC: Substrate of synthetic rubber reinforced with two braids of high resistant steel, covered with black synthetic rubber
7) Type 4SH: Synthetic rubber hose with 4 spirals of wire covered with black synthetic rubber resistant to abrasion, oils, fuels and ozone - according to EN 856
8) Type 4SP: Synthetic rubber hose with 4 spirals of wire covered with black synthetic rubber resistant to abrasion, oils, fuels and ozone - according to EN 856
9) Type R13: Synthetic rubber hose with 4 (6 for biggest sizes) spirals of wire covered with black synthetic rubber resistant to abrasion, oils, fuels and ozone - according to EN 856

Hoses: Made by SEMPERIT Technische Produkte Gesellschaft G.m.b.H
Couplings Made by Cast S.P.A in carbon steel and stainless steel according to Catalogue C4 printed March 2013 and 70 series printed April 2008

Application/Limitation

Hose assemblies covered by this certificate are tested according to:

1) EN ISO 15540: 2016 - Fire resistance of hose assemblies- Test methods
2) EN ISO 15541: 2016 - Fire resistance of hose assemblies - Requirements for the test bench

Size		Maximum working Pressure (bar)								
DN	**inch**	**1SN**	**1SC**	**2SN**	**2SC**	**Power**	**Diamante**	**4SP**	**4SH**	**R13**
6	¼"	225	225	400	400	450	400	-	-	-
8	5/16"	215	215	350	350	-	-	-	-	-
10	3/8"	180	180	330	330	-	-	445	-	-
12	½"	160	160	275	275	345	275	415	-	-
16	5/8"	130	-	250	250	-	-	350	-	-
19	¾"	105	-	215	215	-	-	350	420	345
25	1"	88	-	165	165	-	-	280	380	345
31	1 ¼"	63	-	125	-	-	-	-	325	345
38	1 ½"	50	-	90	-	-	-	-	290	345
51	2"	40	-	80	-	-	-	-	250	345

Type Examination documentation

Tests carried out

Fire tests according to ISO 15540/15541:2016

Marking of product

For traceability to this certificate, each hose is marked with:

- Hose manufacturer's name or trademark;
- Date of manufacture (month/year);
- Designation type reference;
- Nominal diameter;
- Pressure rating;
- Temperature rating.