DNV·GL

Certificate No:
**MEDB000067H**

# 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: flexible pipe assemblies and compensators**

with type designation(s)
**Deltaflex 4CT**

Issued to
**HYDROSCAND AS**
**OSLO, Norway**

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 **2025-03-26**.
Issued at **Høvik** on **2020-03-27**

DNV GL local station:
**Norway Fleet in Service, East-South**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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 300,000 USD.



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## Product description

The hose is made of oil and water-resistant rubber tube, reinforced with 4 layers of steel wire spirals and cover made of oil and weather resistant synthetic rubber.
Hose manufacturer: Semperit Technische Produkte GmbH, Wimpassing, Austria
Couplings:

- Hydroscand 47- series / TIEFFE hose fittings "CS" series
  Material: 11SMnPb37 & 11SMnPb30 according to EN 10277-3:2000
- Hydroscand serie 44S PH Industrie-Hydraulik GmbH & Co
  Materials: 1.4571 / 1.4404 (AISI 316Ti / 316)
- Hydroscand serie 44 Tecnor S.r.l
  Materials: 11SMnPb37 & 11SMnPb30 according to EN 10277-3:2000

Assembling location: HYDROSCAND AS, Oslo, Norway

## 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

Maximum working pressure (MAWP):

| Article number | Size | | | Max working pressure (bar) |
|---|---|---|---|---|
| | DN | inch | Dash | |
| 1115-10-12 | 19 | ¾" | -12 | 350 |
| 1115-10-16 | 25 | 1" | -16 | 320 |
| 1115-10-20 | 31 | 1 ¼" | -20 | 345 |
| 1115-10-24 | 38 | 1 ½" | -24 | 290 |
| 1115-10-32 | 51 | 2" | -32 | 250 |

## Type Examination documentation

Tecnor S.r.l coupling datasheet

## Tests carried out

Fire tests carried out according to ISO 15540/15541

## Marking of product

As a minimum, the final products (hoses with couplings) are to be marked with:

- Manufacturers name or trademark
- Manufacturer's address
- Specification or hose name
- Hose size (inside diameter in inches)
- Data code (quarterly and daily production code)