



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAS000005G**  
Revision No:  
**1**

## This is to certify:

**That the High Holding Power Anchor**

with type designation(s)  
**SHH Type Fully Balanced, SHH Type Standard**

Issued to  
**Schmitt Anchors & Chaincables B.V.**  
**ZWIJNDRECHT, Netherlands**

is found to comply with  
**DNV rules for classification – Ships**

## Application :

**Approved for use as High Holding Power Anchor according to DNV Rules for weights in range of:**  
**\* 180 kg to 3040 kg for SHH Type Standard**  
**\* 180 kg to 9700 kg for SHH Type Fully Balanced**  
**with 25% reduction in weight compared to a normal stockless anchor.**

Issued at **Høvik** on **2022-01-12**

for **DNV**

This Certificate is valid until **2027-01-11**.

DNV local station: **Netherlands CMC**

Approval Engineer: **Lap Van Duong**

**Aldo Matteucci**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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 300,000 USD.



## Product description

High Holding Power anchors with the following types and weights:

- SHH Type Standard, from 180 kg to 3040 kg.
- SHH Type Fully Balanced, from 180kg to 9700 kg.

Full list of SHH ST:180-225-270-315-360-495-585-675-765-855-970-1080-1195-1305-1440-1575-1710-1845-1980-2140-2295-2475-2655-2835-3040.

Full list of SHH FB:180-225-270-315-360-495-585-675-765-855-970-1080-1195-1305-1440-1575-1710-1845-1980-2140-2295-2475-2655-2835-3040-3240-3445-3670-3940-4210-4500-4840-5175-5515-5850-6225-6525-6975-7425-7875-8325-8775-9225-9700

## Application/Limitation

- This certificate (design assessment) is a verification of the design towards the listed rules/requirements. The assessment does not waive requirements for certification of the anchor (i.e. issuance of DNV product certificate) or classification procedure required by DNV rules for product installed on DNV classed vessels.
- The manufacturer is required to have a DNV surveyor witness all important production and tests as required.
- All welding is to be carried out by qualified welders and according to approved welding procedures.
- Relevant NDT shall be performed after proof load testing.
- Each anchor and anchor shackle are to be delivered with required material certificates in accordance with Pt.3 Ch.1 Sec.3 [3.1] and Ch.11 Sec.1 [4.2] as specified in the approved drawings. Materials specified according to other standards than DNV Rules shall fulfil the relevant corresponding rules requirements in Pt.2.
- Proof load shall correspond to the weight of normal stockless anchor i.e. 4/3 of HHP anchor weight according to Pt. 3 Ch.11 Sec. 1 [4.5]
- Assembly and fitting tolerance shall be in according with Pt. 3 Ch. 3 Sec. 1 [4.4]

## Type Approval documentation

Rev. 0:

<i>Drawing No.</i>	<i>Rev.</i>	<i>Date</i>	<i>Title</i>
-	-	18-07-2012	Anchor SHH Type ... Kg Standard
-	-	17-07-2012	Anchor SHH Type ... Kg Fully Balanced

Anchors added to Rev. 1 :

<i>Drawing No.</i>	<i>Rev.</i>	<i>Date</i>	<i>Title</i>
-	0	22-07-2010	Anchor SHH Type 225 KG Standard
-	0	23-07-2010	Anchor SHH Type 315 KG Standard
-	0	23-07-2010	Anchor SHH Type 360 KG Standard
-	0	24-07-2010	Anchor SHH Type 585 KG Standard
-	0	24-07-2010	Anchor SHH Type 675 KG Standard
-	0	26-07-2010	Anchor SHH Type 855 KG Standard
-	0	27-07-2010	Anchor SHH Type 1080 KG Standard
-	0	27-07-2010	Anchor SHH Type 1195 KG Standard
-	0	27-07-2010	Anchor SHH Type 1440 KG Standard
-	0	27-07-2010	Anchor SHH Type 1575 KG Standard
-	C	28-01-2019	Anchor SHH Type 1845 KG Standard
-	C	28-01-2019	Anchor SHH Type 1980 KG Standard
-	C	29-12-2017	Anchor SHH Type 2140 KG Standard
-	C	20-08-2016	Anchor SHH Type 2295 KG Standard
-	C	24-07-2017	Anchor SHH Type 2655 KG Standard
-	C	25-07-2017	Anchor SHH Type 2835 KG Standard
-	C	28-12-2019	Anchor SHH Type 3040 KG Standard
-	B	01-02-2011	Anchor SHH Type 225 KG Fully Balance
-	A	29-07-2010	Anchor SHH Type 315 KG Fully Balance
-	-	29-03-2010	Anchor SHH Type 360 KG Fully Balance

-	A	28-07-2010	Anchor SHH Type 585 KG Fully Balance
-	A	28-07-2010	Anchor SHH Type 675 KG Fully Balance
-	A	26-07-2010	Anchor SHH Type 855 KG Fully Balance
-	A	26-07-2010	Anchor SHH Type 1080 KG Fully Balance
-	C	07-10-2016	Anchor SHH Type 1195 KG Fully Balance
-	B	10-11-2010	Anchor SHH Type 1440 KG Fully Balance
-	C	02-07-2016	Anchor SHH Type 1575 KG Fully Balance
-	C	22-01-2019	Anchor SHH Type 1845 KG Fully Balance
-	C	22-01-2019	Anchor SHH Type 1980 KG Fully Balance
-	A	28-07-2010	Anchor SHH Type 2140 KG Fully Balance
-	C	09-01-2013	Anchor SHH Type 2295 KG Fully Balance
-	A	20-09-2010	Anchor SHH Type 2655 KG Fully Balance
-	C	15-08-2016	Anchor SHH Type 2835 KG Fully Balance
-	C	23-01-2019	Anchor SHH Type 3040 KG Fully Balance
-	C	23-01-2019	Anchor SHH Type 3445 KG Fully Balance
-	C	23-01-2019	Anchor SHH Type 3670 KG Fully Balance
-	C	07-07-2019	Anchor SHH Type 3940 KG Fully Balance
-	C	06-07-2019	Anchor SHH Type 4500 KG Fully Balance
-	C	06-07-2019	Anchor SHH Type 4840 KG Fully Balance
-	0	16-07-2010	Anchor SHH Type 5515 KG Fully Balance
-	C	05-07-2019	Anchor SHH Type 5850 KG Fully Balance
-	C	02-07-2019	Anchor SHH Type 6525 KG Fully Balance
-	C	07-07-2019	Anchor SHH Type 6975 KG Fully Balance
-	C	24-01-2019	Anchor SHH Type 7425 KG Fully Balance
-	C	30-12-2017	Anchor SHH Type 8325 KG Fully Balance
-	C	24-01-2019	Anchor SHH Type 8775 KG Fully Balance
-	C	24-01-2019	Anchor SHH Type 9225 KG Fully Balance

### Tests carried out

Anchor sea trial report SHH\_ST\_180-9700kg, SHH\_FB\_180-21400kg, SHI\_ST\_180-9700kg and SHI\_FB\_180-9700. Trials carried out in LR certificate no.: ROT 0606317/APCT dated 2010-08-17.

### Marking of product

Each anchor shall be stamped according to Rules Pt.3 Ch.11 Sec.1 [4.7].

### Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.