



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

22-2272622-PDA  
22-Sep-2022  
21-Sep-2027  
London Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**SCHMITT ANCHORS & CHAINCABLES BV**

located at

**KREEKWEG 10, , ZWIJNDRECHT, Netherlands, 3336 LC**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product:** Anchor, High Holding Power  
**Model:** SHH TYPE (weight in kg) FB SS  
**Endorsements:**  
**Tier:** 5 - Unit Certification Required

This Product Design Assessment (PDA) Certificate remains valid until 21/Sep/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Nitin Tyagi, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## SCHMITT ANCHORS & CHAINCABLES BV

KREEKWEG 10

ZWIJNDRECHT

Netherlands 3336 LC

Telephone: +31-88-0234100

Fax:

Email: info@schmitt-anchors.com

Web: www.schmitt-anchors.com

### Tier: 5 - Unit Certification Required

---

**Product:** Anchor, High Holding Power  
**Model:** SHH TYPE (weight in kg) FB SS  
**Endorsements:**

#### Intended Service:

Stockless anchors for temporary, mobile and permanent anchoring systems on ships and offshore installations

#### Description:

Tween plates and stop plates welded together form anchor crown to which base tripping plates and plate flukes are connected by welding. Forged shank is secured to the crown by a through bolt the axis of which is in plane with flukes. Angled base plates help to trip the flukes when the anchor is aground and to snug them against ship side when weighing. A shackle is attached to the top of shank.

#### Rating:

180kg - 9700kg

#### Service Restriction:

Unit Certification is required for this product. The scope of unit certification is to cover the following:

1. All materials and welding are to be in accordance with the 2022 ABS Rules for Materials and Welding, 2-2-1 and to the Surveyor's satisfaction.
2. The Anchors are to be inspected and tested by the ABS Surveyor according to the 2022 ABS Rules for Materials and Welding, 2-2-1/7.
3. Tolerances are to be as per the 2022 ABS Rules for Materials and Welding, 2-2-1/5.1.
4. NDE is to be carried out for welding before and after Proof Load application. NDE is to be carried out in accordance with the 2022 ABS Rules for Materials and Welding, 2-2-1/7.3.
5. SHP anchors are to be proof tested with loads required by the 2022 ABS Rules for Materials and Welding 2-2-1/Table 6 for an anchor mass equal to 1.33 times the actual mass of the SHP anchor. The proof loading procedure and examination procedure for SHP anchors are to comply with those for ordinary anchors, described in the 2022 ABS Rules for Materials and Welding, 2-2-1/7.1.
6. Marking is to be carried out in accordance with the 2022 ABS Rules for Materials and Welding, 2-2-1/9.
7. Product tests are to be in accordance with 2022 ABS Rules for Materials and Welding, 2-2-1/7.3.
8. Anchor is to remain unpainted until all tests and inspections have been completed.

For ABS Classed vessels when the Equipment Symbol Circle E, Circle M and Circle P are requested or if the anchor is used on a site specific application; the anchor is to be reviewed specifically on a case by case basis.

The scope of type approval is to comply with MSC.1/Circ.1221 dated 11th December 2006.

If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

#### Comments:

Anchor holding power should be suitable for the intended installation. Accordingly, the exact holding power of the anchor system should be based upon the test data appropriate for the soil at the installation site. This Type approval covers the structural design of the anchor. Each anchor is subject to individual certification during the manufacturing and proof tests. The anchor shackle is designed as part of the anchor. An additional fatigue analysis may be required for each permanent installation on a case by case basis.

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

#### Notes/Drawing/Documentation:

Doc. no. SHH 585 FB SS dated 05.08.2010 - Anchor SHH Type 585 kg Fully Balanced SS

Doc. no. SHH 970 FB SS dated 05.08.2010 - Anchor SHH Type 970 kg Fully Balanced SS

**SCHMITT ANCHORS & CHAINCABLES BV**

KREEKWEG 10

ZWIJNDRECHT

Netherlands 3336 LC

Telephone: +31-88-0234100

Fax:

Email: info@schmitt-anchors.com

Web: www.schmitt-anchors.com

**Tier: 5 - Unit Certification Required**

---

Table of design dimensions for SHH (Schmitt high holding) anchor - Fully Balanced type

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 21/Sep/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

**STANDARDS****ABS Rules:**

ABS Rules for Condition of Classification (2022): 1-1-4/7.7, 1-1-A3 &amp; A4

ABS Rules for Materials and Welding (2022): 2-2-1

ABS Rules for Building and Classing Marine Vessel Rules (2022): 3-5-1

ABS Rules for Condition of Classification -Offshore Units and Structures (2022): 1-1-4/9.7, 1-1-A2 &amp; 1-1-A3

ABS rules for Building and Classing Mobile Offshore Unit Rules (2022): 3-4-1

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA