



CERTIFICATE NUMBER
17-LD1627290-PDA

DATE
12 Jun 2017

ABS TECHNICAL OFFICE
London Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

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

SCHMITT ANCHORS & CHAINCABLES B.V.

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: **SHI TYPE (weight in kg) STANDARD**

This Product Design Assessment (PDA) Certificate 17-LD1627290-PDA, dated 12/Jun/2017 remains valid until 11/Jun/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an 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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

SCHMITT ANCHORS & CHAINCABLES B.V.

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Netherlands

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Tier: 5 - Unit Certification Required

Product: Anchor, High Holding Power

Model: SHI TYPE (weight in kg) STANDARD

Intended Service:

STOCKLESS ANCHORS FOR TEMPORARY, MOBILE AND PERMANENT ANCHORING SYSTEMS ON SHIPS AND OFFSHORE INSTALLATIONS

Description:

HINGE PLATES, FOOT PLATE AND STOP PLATES WELDED TOGETHER FORM ANCHOR CROWN TO WHICH RAKED PALM PLATES AND PLATE FLUKES WITH FINGER PLATES ARE CONNECTED BY WELDING. LAMELLED/MASSIVE SHANK IS SECURED TO THE CROWN BY A THROUGH BOLT THE AXIS OF WHICH IS IN PLANE WITH FLUKES. HEAVY SHANK COG HELPS TO TRIP THE FLUKES WHEN THE ANCHOR IS AGROUND. A SHACKLE IS ATTACHED TO THE TOP OF SHANK. PLACE OF FINAL TEST AND INSPECTION

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 Rules 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 Rules 2-2-1/7.
3. Tolerances are to be as per the Rules 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 Rules 2-2-1/7.3.
5. SHP anchors are to be proof tested with loads required by the Rules 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 Rules 2-2-1/7.1.
6. Marking is to be carried out in accordance with the Rules 2-2-1/9.
7. Product tests are to be in accordance with 2013 Steel Vessel Rules 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.

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. SHI 585 ST dated 8.6.2010 - Anchor SHI Type 585 kg Standard

Doc. no. SHI 970 ST dated 8.6.2010 - Anchor SHI Type 970 kg Standard

Table of design dimensions for SHI high holding power anchor - standard type

Terms of Validity:

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STANDARDS

ABS Rules:

ABS Rules for Condition of Classification 2017: 1-1-4/7.7, 1-1-A3 & A4

ABS Rules for Materials and Welding 2017: 2-2-1

ABS Rules for Building and Classing Steel Vessels 2017: 1-1-4/7.7, 1-1-A3 & A4, 3-5-1

ABS Rules for Building and Classing Steel Vessels Under 90 M in length 2017: 1-1-4/7.7, 1-1-A3 & A4, 3-5-1

ABS Rules for Building and Classing Offshore Support Vessels 2017: 1-1-4/7.7, 1-1-A3 & A4, 3-5-1

ABS Rules for Building and Classing High Speed Craft 2017: 1-1-4/11.9, 1-1-A3 & A4, 3-5-1

ABS Rules for Condition of Classification -Offshore Units and Structures 2017 - Mobile Offshore Drilling Units: 1-1-4/9.7, 1-1-A2 & 1-1-A3, 3-4-1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA