

CERTIFICATE NJMBER 08-SG332761/1-PDA DATE 19 March 2013

ABS TECHNICAL OFFICE Singapore Ship Engineering

Certificate of DESIGN ASSESSMENT

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

CHONGQING MARINE & INDUSTRIES CO., LTD. -Chongqing

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: ST Offshore Anchor HHP 500kg - 30000kg Mass

This Product Design Assessment (PDA) Certificate 08-SG332761/1-PDA, dated 19/Mar/2013 remains valid until 18/Mar/2018 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	
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Engineer	

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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 manufacturing process 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 Rule 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010). Electronically published by ABS Singapore, Reference T1007520, dated 19-Mar-2013.



CHONGQING MARINE & INDUSTRIES CO., LTD. 26th FLOOR, BEICHENMINGDU, NO. 25-31, JIANXINBEI ROAD, JIANBEI DISTRIC, Chongqing, China,

	Via O2E Interface
	19 March 2013
File Ref.:	T-8-6
Refer to:	JFAN/SF/T1007520
Oracle ID:	2981580

Attn.: Mr. Michael Chang

Re: ST Offshore Anchor

Model No. HHP 500kg – 30,000 kg Mass Type Approval – Product Design Assessment Renewal

Gentlemen,

We have your application for Product Design Assessment Renewal dated at 20 Feb 2013 and we are pleased to advise that the design assessment phase of the type approval process is complete with the exception of component testing as described below.

We have pleasure in confirming that the design will be accepted as a superior holding power anchor (i.e. with 25% weight reduction permitted by 3-5-1/7 of Steel Vessel Rules) for a range of masses from 500 kg to 30,000 kg, in association with the HHP proof load as indicated in the Table in Attachment 1. Individual anchors constructed to the plans and data in Attachment 2 will be accepted for use on vessels classed with the Bureau subject to the relevant requirements of the Rules.

Enclosed is your original copy of the **CERTIFICATE OF DESIGN ASSESSMENT**; Certificate No: **08-SG332761/1-PDA** dated 19 Mar 2013 (Model No. HHP 500kg – 30,000 kg Mass). Please read the pages attached to the certificate to be sure that you understand the scope and conditions of the validity of the certificate. Since the original certificate is multi-colored, we have no objections to unlimited black and white photocopies of the certificate being distributed.

Attached please find an updated Product Listing in the ABS Programs Database indicating product description and service restriction.

Please note that it is your responsibility to submit the revised plans due to the intentional design or rating changes and/or updating of the applicable standards except for ABS Rules.

Thank you for considering ABS for your certification needs. If you should have any comments relative to the scope and conditions of the assessment of your product, or if we can be of any further assistance, please do not hesitate to contact us.

Yours very truly, Bill Shi Vice President of Engineering

by:__

Du Aiping Manager Ship/FPSO Structures & Statutes

Encl: Certificate and Product Listing

c.c. ABS Programs (Houston) w/copy of cert (by email)

c.c. ABS Singapore Operations w/copy of cert (by email)