



CERTIFICATE NUMBER

OMC-T2274583

ISSUING OFFICE

GCD Materials

CERTIFICATE OF OFFSHORE MOORING CHAIN OR ACCESSORY FACILITY AND PROCESS APPROVAL

This is to certify that a representative of ABS did, at the request of
JIANGSU ASIAN STAR ANCHOR CHAIN CO., LTD.
DONGXIN TOWN, JINGJIANG, China

attend its facilities as indicated in the ABS City CN Nantong Port (MLO) port office survey report number 5322745 dated 15 June 2022 in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

Chain and Accessory components for marine applications

in accordance with the ABS Approval letter (Reference T2274583), ABS Rules, designated standards and ABS approved drawings. The approval is valid till 12 June 2027 subject to adherence to relevant ABS Rules and Survey requirements.

A handwritten signature in black ink, appearing to read 'Marcus Cridland', is written over a horizontal line.

Marcus Cridland
Chief Metallurgist, ABS

ISSUE DATE: 15 June 2022

EXPIRY DATE: 12 June 2027

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. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, Guides, standards or other criteria of ABS as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a full description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of ABS who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



Task – T2274583
Offshore Mooring Chain/Accessory
Manufacturer Approval - Renewal
Certificate No. OMC-T2274583 &
QA-5322745

Attention: Ms. Coco Yin, JIANGSU ASIAN STAR ANCHOR CHAIN CO., LTD. (WCN: 371336)

The documents shown in the attached list are reviewed in accordance with the applicable requirements of the following and the facility is considered approved to manufacture offshore mooring chain and accessory as outlined in the process/product approval.

1. ABS Rules for Materials and Welding Part 2 (2022)
2. ABS Guide for the Certification of Offshore Mooring Chain (May 2017)

For any clarifications, contact Ms. Lin Li-Hong at +86-21-23270994, (llin@eagle.org).

Very truly yours,

Wei-Biao (Bill) Shi
Vice President

Electronically Signed by: Satya Meruva

Documents List

Drawing No.	Rev. No.	Title	Status
Application form	N/A	Application form	Filed by ABS for Reference Only
ISO certificate	N/A	ISO 9001 Certificate	Filed by ABS for Reference Only
No change declaration	N/A	No change declaration	Reviewed
Statistical data for five years	N/A	Chemistry, mechanical properties	Reviewed

Electronic copies of the documents appropriately stamped, are available in the ABS Client Portal.

Process/Product Approval

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
Chain – Studless Common Link	R4S	200 mm	205 mm (machined from 225 mm)	DQT
Chain – End Link	R4S	220 mm	225 mm	DQT
Steel bar Manufacturer: Jiangyin Xingcheng Special Steel Works Co., Ltd. (WCN585862) DQT – Double Quenching + Tempering The R4S 220 mm end link is connected to R4S 184 mm stud common link, hence is proof & break tested with the same load as the stud mooring link.				
Previously Approved Grades				
Chain – Splice Link	R3S	120 mm	123mm	QT
Chain – Splice Link	R3	120 mm	123mm	QT
Chain – Stud/Studless Common Link	R3S	157 mm	160mm	QT
Chain – Stud/Studless Common Link, End/Enlarged Link	R4	132 mm	135mm/ 160mm	QT
Accessory – Kenter Type Pear Shaped Detachable Connecting Link	R3	76 - 95 mm	160mm	QT
Chain – Stud/Studless Common Link	R3	157 mm	160mm	QT
Steel bar Manufacturer: Daye Special Steel Co., Ltd. (WCN 588379)				
Accessory – Kenter/End/Joining/End Joining Shackle – D Type	R4	152 mm	350mmx350mm	QT
Accessory – Slim Kenter Shackle	R4	120 mm	200mm	QT
Accessory – Triangle Plate	R4	120 mm	350mmx350mm	QT

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
Accessory – Waiting Hook Shackle KS50	R4	120 mm	350mmx350mm	QT
Accessory – Swivel	R4	137 mm	350mmx350mm	QT
Accessory – Rope Shackle Special MBL 710t	R4	102 mm	200mm	QT
Chain – Stud/Studless Common Link, End Link	R5	137 mm	142mm/ 170mm	QT
Chain – End Link	R4	90 mm	110mm	QT
Chain – C-Type Pear Shaped Detachable Connecting Link	R4	103 - 108 mm	250mm	QT
Accessory – End Shackle	R4	132 mm	500mm	QT
Accessory – Kenter Shackle	R4	132 mm	350mm	QT
Chain – Kenter Type Pear Shaped Detachable Connecting Link	R4	76 - 95 mm	200mm	QT
Accessory – Joining Shackle – H Type	R4	130 mm	350mmx350mm	QT
Accessory – Kenter Shackle, End Shackle	R3	157 mm	350mm/500mm	QT
Accessory – Kenter Shackle, End Shackle	R3S	157 mm	350mm/500mm	QT
Chain – Stud/Studless Common Link	R4	107 mm	110mm	QT
Chain – Splice Link	R5	137 mm	142mm	QT
Steel bar Manufacturer: Baoshan Iron & Steel Co., Ltd. - Core Base				
Chain – Stud/Studless Common Link,	R4	102 mm	350mm	QT

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
Kenter/End Shackle, Swivel				
Chain – Enlarged Link	R4	92 mm	105mm	QT
Chain – Stud/Studless Common Link	R3S	114 mm	117mm	QT
Chain – Enlarged Link	R3S	105 mm	117mm	QT
Chain – End Link	R4	84 mm	117mm	QT
Accessory - Kenter Shackle, End Shackle, Swivel	R3S	114 mm	350mm	QT
Chain – Stud/Studless Common Link	R3	122 mm	125mm	QT
Chain – Enlarged Link	R3	111 mm	125mm	QT
Accessory – Kenter Shackle, End Shackle, Swivel	R3	122 mm	500mm	QT
Chain – End Link	R3	102 mm	125mm	QT
Chain – End Link	R3S	95 mm	117mm	QT
Steel bar Manufacturer: Baoshan Iron & Steel Co., Ltd. - Special Steel Branch				
Accessory – Swivel Shackle	R5	84 mm	350mm	QT
Accessory – Swivel, End Shackle. Kenter Shackle	R5	137 mm	350mm	QT
Steel bar Manufacturer: Sourced from Baoshan Iron & Steel Co., Ltd. (WCN 191130)				
Accessory – Kenter Shackle, End Shackle, H-Shackle, End Joining Shackle, Joining Shackle	R3S	187 mm	800mm	QT

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
Accessory – Kenter Shackle, End Shackle, H-Shackle, End Joining Shackle, Joining Shackle	R4	187 mm	800mm	QT
Accessory – Swivel Shackle	R4	102 mm	800mm	QT
Accessory – Swivel	R4	137 mm	800mm	QT
Chain – Splice Link	R4	147 mm	150mm	QT
Chain – Stud/Studless Common Link	R4	147 mm	150mm	QT
Chain – Stud/Studless Common Link	R3S	157 mm	160mm	QT
Chain – Stud/Studless Common Link	R3	157 mm	160mm	QT
Accessory – Swivel	R4S	137 mm	800mm	QT
Chain – Stud/Studless Common Link	R4S	124 mm	127mm	QT
Chain – End Link, Installation Connecting Link	R4S	120 mm	123mm	QT
Accessory – Swivel Shackle	R3	102 mm	800mm	QT
Chain – Installation Connecting Link	R4	120 mm	123mm	QT
Chain – End Link	R4	132 mm	160mm	QT
Chain – C-Type Pear Shaped Detachable Connecting Link	R3	62 - 79 mm	200mm	QT
Chain – C-Type Detachable Connecting Link	R3	76 mm	180mm	QT

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
Accessory – Kenter Shackle, End Shackle, H-Shackle, Joining Shackle, End Joining Shackle	R4S	187 mm	800mm	QT
Accessory – Kenter Shackle, End Shackle, H-Shackle, End Joining Shackle, Joining Shackle	R3	187 mm	800mm	QT
Accessory – Swivel	R3	137 mm	800mm	QT
Accessory – Swivel Shackle	R3S	102 mm	800mm	QT
Accessory – Swivel	R3S	137 mm	800mm	QT
Accessory – Swivel-JAW/GPS/SPS Type	R4	70-95 mm	600mm	QT
Chain – Studless Common Link	R3	165 mm	168mm	QT
Chain – Splice Link	R3	165 mm	168mm	QT
Chain – Splice Link	R3S	157 mm	160mm	QT
Steel bar Manufacturer: Jiangyin Xingcheng Special Steel Works Co., Ltd. (WCN585862)				
Chain - Common Stud & Studless Link	R3	127 mm	130mm	QT
Steel bar Manufacturer: Suzhou Suxin Special Steel Co., Ltd. (WCN762204)				
Chain – Studless Common Link	R3, R3S, R4	220 mm	225 mm	DQT
Chain – End Link	R3, R3S, R4	220 mm	225 mm	DQT
Steel bar Manufacturer: Jiangyin Xingcheng Special Steel Works Co., Ltd. (WCN585862) DQT – Double Quenching + Tempering				

Product	Grade	Maximum Nominal Diameter	Forged or Rolled Bar Diameter	Delivery Condition
The R3/R3S/R4 220 mm end link is connected to R3/R3S/R4 184 mm common stud link respectively, hence is proof & break tested with the same load as the specified mooring chain.				
Chain – Stud/Studless Common Link	R3S	157 mm	160 mm	N+QT
Chain – End Link	R3S	158 mm	160 mm	N+QT
Steel bar Manufacturer: Jiangyin Xingcheng Special Steel Works Co., Ltd. (WCN585862) Note: The R3S 158 mm end link is connected to R3S 132 mm common stud link, hence is proof & break tested with the same load as the specified mooring chain.				

Note:

1. Weld repair is not permitted on offshore mooring chain or accessories.
2. Forging process for accessory is in-house.

Include: Manufacturer Approval Certificate (OMC-T2274583) and QA Certificate (QA-5322745)