Confirmation of Product Type Approval

Company Name: GN OCEAN ENGINEERING EQUIPMENT (TIANJIN) CO.,LTD.

Address: #1901 RM, #1111, XINGANG ROAD, TIANJIN PILOT FREE TRADE ZONE (CBD), CHINA. China

Product: Steel Wire Rope Ends

Model(s): Diameter: 10mm - 128mm (Steel Wire Rope Ends with Socket / Steel Wire Rope Ends with Al-alloy Swaged Ferrule / Steel Wire Rope Ends with Spliced Eye Termination / Steel Wire Rope Ends with Grommets and cable-laid slings / Steel Wire Rope Ends with Steel Swaged Ferrule)

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	22-2321433-PDA	14-NOV-2022	13-NOV-2027
Manufacturing Assessment (MA)	17-TJ3410074	20-NOV-2017	19-NOV-2022
Product Quality Assurance (PQA)	NA	NA	NA

Tier
5 - Unit Certification Required

Intended Service
Lifting appliance, loading and unloading arrangements, towing line, rigging and similar appliance.

Description
Steel Wire Rope Ends with Socket: Steel wire rope with open/closed type socket - poured sling assembly.

Steel Wire Rope Ends with Al-alloy Swaged Ferrule: Steel wire rope with type "A" - cylindrical Al-alloy swaged ferrules assembly.

Steel Wire Rope Ends with Spliced Eye Termination: Steel wire rope with spliced eye termination for sling.

Steel Wire Rope Ends with Grommets and cable-laid slings: Endless wire rope sling made from one continuous length of strand, formed to make a body composed of six stands around a strand core.

Steel Wire Rope Ends with Steel Swaged Ferrule: Steel wire rope with forging steel socket, flemish eye ferrules swaged assembly.

Ratings
The steel wire rope is with following specification:

-10mm~128mm / 1670~1960 / 70~10600

[Diameter (mm) / Grade (MPa) / Minimum Breaking Load (kN)]

Steel Wire Rope Ends with Socket

Safe Working Load (kN) / Proof Load (kN) / Minimum Breaking Load (MBL) / Steel Wire Rope Diameter (mm)

-12~2120 / 24~4240 / 59.5~10600 / 10~128

Steel Wire Rope Ends with Al-alloy Swaged Ferrule

Safe Working Load (kN) / Proof Load (kN) / Minimum Breaking Load (MBL) / Steel Wire Rope Diameter (mm)

-12.6~1908 / 25.2~3816 / 70~10600 / 10~128

Steel Wire Rope Ends with Spliced Eye Termination

Safe Working Load (kN) / Proof Load (kN) / Minimum Breaking Load (MBL) / Steel Wire Rope Diameter (mm)

-12~1590 / 24~3180 / 59~7950 / 10~128

Steel Wire Rope Ends with Grommets and cable-laid slings

Safe Working Load (kN) / Proof Load (kN) / Minimum Breaking Load (MBL) / Steel Wire Rope Diameter (mm)

-40.2~7711 / 80.4~15422 / 201~23134 / 20~180

Steel Wire Rope Ends with Steel Swaged Ferrule

Safe Working Load (kN) / Proof Load (kN) / Minimum Breaking Load (MBL) / Steel Wire Rope Diameter (mm)

-14~2120 / 28~4240 / 70~10600 / 10~128

Service Restrictions
Unit Certification is required for these products.

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
1. Subject to individual wire rope requirements to the intended service condition.

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

Notes, Drawings and Documentation
Drawing List: (Ref. Task No.T1674355 dated 2 Nov.2017)

Drawing No.// Rev. No. // Drawing Title

SXT-CB-001// 0 // Spliced eye termination for sling

SXT-WJTBZ-01// 0 // Grommets and Cable-laid Slings

SXT-GTYZ-003// 0 // Ferrules, sleeves & swaging products

SXT-JZBSSJ-002// 0 // Socket-poured sling (Closed type)

SXT-JZKSSJ-001// 0 // Socket-poured sling (Open type)

SXT-GTYZ-001 // 0 // Ferrules, sleeves & swaging products

SXT-GTYZ-002 // 0 // Ferrules, sleeves & swaging products

SXT-LTYZ-002-001// 0 // Aluminum-alloy swaged ferrules for steel wire rope and sling of four legs

SXT-LTYZ-002 // 0 // Aluminum-alloy swaged ferrules for steel wire rope with thimble

SXT-LTYZ-001 // 0 // Aluminum-alloy swaged ferrules for steel wire rope with soft eye termination

N-A-2// 0 // Product Details

N-A-3// 0 // Test Program

SXTRK 20160101// 0 // Test report dated 1 August 2017.

Term of Validity
This Product Design Assessment (PDA) Certificate remains valid until 13/Nov/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.

ABS Rules
- Marine Vessels Rules (2022): 1-1-4/7.7, 1-1-A3 and A4
- Facilities on Offshore Installations (2022) 1-1-4/9.7, 1-1-A2 and A3
- Mobile Offshore Drilling Units Rules (2022) 1-1-4/9.7, 1-1-A2 and A3
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2022) 1-1-4/7.7, 1-1-A3 and A4
- Bulk Carriers for Service on the Great Lakes (2022) 1-1-4/7.7, 1-1-A3 and A4
- High-Speed Craft (2022) 1-1-A2 and A3,1-1-4/11.9
- Steel Barge Rules (2022) 1-1-A3 and A4,1-1-4/7.7

International Standards
ISO 17558-2006: Steel Wire Ropes - Socketing Procedures - Molten Metal and Resin Socketing

EU-MED Standards
NA

National Standards
GB/T 6946-2008, Al-alloy swaged ferrules for steel wire rope.

GB/T 30589-2014 , Steel wire rope terminations - Ferrule - Securing sling.

GB/T 16271-2009, Steel wire rope - Spliced eye termination for sling.

CB/T 4424-2015, Steel wire socket.

GB/T 30587-2014, Steel wire rope sling - Grommets.

GB/T 30588-2014, Termination for steel wire rope - Molten metal socketing.

Government Standards
NA

Other Standards
NA

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 17-Nov-2022 10:03

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.