

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Mooring and Towing Equipment

with type designation(s)

WL/YJ-ZLQ-A76-250T, WL/YJ-ZLQ-A76-350T, WL/YJ-DLK-BC600x450-250T, WL/YJ-DLK-BC600x450-350T

Issued to

**Taizhou City Wanli Ship Machinery Manufacturing Co.,Ltd.
Jiangsu, China**

is found to comply with

DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2017-06-23**

This Certificate is valid until **2022-06-22**.

DNV GL local station: **Nantong**

Approval Engineer: **Stefan Heuer**

for **DNV GL**

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Jörg Kallies
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Chain stopper type WL/YJ-ZLQ-A76-250T
Chain stopper type WL/YJ-ZLQ-A76-350T
Fairlead type WL/YJ-DLK-BC600x450-250T
Fairlead type WL/YJ-DLK-BC600x450-350T

Application/Limitation

Chain stopper type WL/YJ-ZLQ-A76-250T and Fairlead type WL/YJ-DLK-BC600x450-250T approved for:
Emergency Towing System (ETS) for tankers up to and over 50.000 tdw
Single Point Mooring System (SPM) for tankers up to 150.000 tdw

Chain stopper type WL/YJ-ZLQ-A76-350T and Fairlead type WL/YJ-DLK-BC600x450-350T approved for:
Emergency Towing System (ETS) for tankers up to and over 50.000 tdw
Single Point Mooring System (SPM) for tankers up to and over 150.000 tdw

- Materials for load bearing components shall hold at least 3.1 material certificates acc. to ISO 10474
- Impact energy KV: $\geq 27J$ at $0^{\circ}C$
- Welding is to be carried out by qualified personal per approved WPS
- NDT is to be carried out to the attending surveyor's satisfaction

Product certification

The manufacturer is required to have a DNVGL surveyor witness all important production steps. Upon satisfactory examination, the surveyor is to stamp the load bearing components and issue a PC (Product Certificate).

Type Approval documentation

is based on the following drawings, verified with Job Id: MCAPL354-P261.1C-2 (Approval Letter Ref.-No.: MRCCN372/WJL/P261.1C-J-78946):

<i>Drawing No.</i>	<i>Rev. No.</i>	<i>Title</i>
WL/YJ-ZLQ-A76-250T	1	Single-point Mooring Chain Stopper
WL/YJ-ZLQ-A76-250T-1	1	Body
WL/YJ-ZLQ-A76-250T-3	-	Axis
WL/YJ-ZLQ-A76-250T-4	-	Blade
WL/YJ-ZLQ-A76-250T-5	-	Chain guide groove
WL/YJ-DLK-BC600x450-250T	-	Chock
WL/YJ-ZLQ-A76-350T	1	Single-point Mooring Chain Stopper
WL/YJ-ZLQ-A76-350T-1	1	Body
WL/YJ-ZLQ-A76-350T-3	-	Axis
WL/YJ-ZLQ-A76-350T-4	-	Blade
WL/YJ-ZLQ-A76-350T-5	-	Chain guide groove
WL/YJ-DLK-BC600x450-350T	-	Chock

and the following updated drawings with respect to the SWL description:

<i>Drawing No.</i>	<i>Rev. No.</i>	<i>Title</i>
WL/YJ-ZLQ-A76-250T	2	Single-point Mooring Chain Stopper
WL/YJ-ZLQ-A76-250T-1	2	Body
WL/YJ-ZLQ-A76-350T	2	Single-point Mooring Chain Stopper
WL/YJ-ZLQ-A76-350T-1	2	Body

Job Id: **262.1-024472-1**
Certificate No: **TAS000013A**

Tests carried out

Type test with Certificate No. WLLL1700510 witnessed by DNVGL dated 2017-05-10
Type test with Certificate No. WLLL1700601 witnessed by DNVGL dated 2017-06-01

Marking of product

Each chain stopper shall be marked by the manufacturer with at least:

- Manufacturer's name or trademark
- Type of equipment
- Serial number
- Year of construction
- Nominal load(s) "SWL"

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform a periodical assessment after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.