

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Emergency Towing Arrangement**with type designation(s)
DXYJTY-200

Issued to

Foshan Daxiang Marine Equipment Co., Ltd.
Guangdong, China

is found to comply with

DNV GL rules for classification – Ships**IMO Resolution MSC 35 (63) of 20 May 1994****OCIMF Mooring Equipment Guidelines, Third Edition 2008****OCIMF's Recommendations for Equipment Employed in the Bow Mooring of Conventional Tankers at Single Point Moorings, Fourth Edition May 2007****Application :****Aft Emergency Towing System combined with Escorting and Pull-Back System as stated on page 2 of this certificate for tankers of 50 000 tonnes deadweight and above - Safe Working Load 2 000 kN****Forward Emergency Towing System and Single Point Mooring as stated on page 2 of this certificate for tankers of 50 000 tonnes deadweight and above - Safe Working Load 2 000 kN, and over 100 000 but not greater than 150 000 tonnes deadweight or less - Safe Working Load 250 tonnes****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-01-08**This Certificate is valid until **2024-01-07**.for **DNV GL**DNV GL local station: **China South NB**Approval Engineer: **Chi Wan Bang**

Aldo Matteucci
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

Aft Emergency Towing System combined with Escorting and Pull-Back System in accordance with drawing No.: DXYJTY-A200-00:

- Safe Working load (SWL): 2 000kN (equivalent to 204 tonnes)

The detailed information of the traction rope, connecting shackle, towing pennant, fairlead, chusheng box, towing bitt and retrieval rope is described in the drawing no.: DXYJTY-A200-00 Rev.E dated May 2018 as well as the detailed drawings from Type Approval Documentation.

Forward Emergency Towing System and Single Point Mooring in accordance with drawing No.: DXYJTY-B250-00:

For Emergency Towing:

- Safe Working load (SWL): 2 000kN (equivalent to 204 tonnes)

For Single Point Mooring:

- Safe Working load (SWL): 250 tonnes

The detailed information of the towline, fairlead, chain stopper and chain stopper base is described in the drawing no.: DXYJTY-B200-00 Rev.E dated May 2018 as well as the detailed drawings from Type Approval Documentation. The chafing chain is only for Emergency Towing System and not intended for Single point Mooring use.

Application/Limitation

- The connection and support of the above components to the ship's structure are not included in this approval and to be covered by separate approvals.
- Winch, towing pennant, pick-up gear and chafing gear are not subject to this approval and to be delivered in accordance with the requirements in Resolution MSC.35(63) and OCIMF's MEG 3rd.
- If installed on DNV GL vessels, a DNV GL product certificate is to be issued for each product and the following will apply:
 - The manufacturer is required to have a DNV GL surveyor witness all important production and tests as required.
 - Non-destructive testing is to be carried out to the attending surveyor's satisfaction.
 - All welding is to be carried out by approved welders and according to approved welding procedures.

For Emergency Towing:

- Materials for load carrying parts are to be delivered with required material certificates in accordance with Pt.5 Ch.5 Sec.1 [4.2] from the mentioned Rules.
- Materials specified to other standards than DNV GL Rules shall fulfill the relevant corresponding rules requirements in Pt.2.
- Towing pennant and pick-up gear may be delivered with maker's certificate.
- The arrangements and positioning of the above components shall comply with the requirements in Resolution MSC.35(63) and OCIMF's MEG 3rd.

For Single Point Mooring:

- Materials for load carrying parts are to be delivered with required material certificates in accordance with Pt.6 Ch.5 Sec.12 [2.1] from the mentioned Rules.
- Materials specified to other standards than DNV GL Rules shall fulfill the relevant corresponding rules requirements in Pt.2.
- The arrangements and positioning of the above components shall comply with the requirements in Pt.6 Ch.5 Sec.12 [4] from the mentioned Rules and OCIMF's Recommendations.

Type Approval documentation

Job Id: **262.1-027221-1**
Certificate No: **TAS000019J**

Tests carried out

Load test reports dated 2018-07-06 and 2018-12-17 for the above mentioned equipment witnessed by DNV GL Guangzhou station.
Deployment test report dated 2018-12-28 for the above mentioned equipment witnessed by DNV GL Guangzhou station.

Marking of product

The load bearing components are to be marked with the SWL, manufacturers name or trademark and type number identification.

Each fitting should be clearly marked by bead weld outline with its SWL. The SWL should be expressed in tonnes (letter 't') to avoid any confusion.

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

END OF CERTIFICATE