

# Towing



mampæy®

OFFSHORE INDUSTRIES

# Contact Us

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## Introduction of Mampaey

Mampaey Offshore Industries is the global market leader in the design, engineering, manufacturing and commissioning of berthing, mooring and towing systems. Over the years our dedication to serve our customers has resulted in several maritime innovations that have driven the new standards in the towing and mooring industry. The developments have contributed to our continuously expanding global customer base. All our products are designed and manufactured to safely withstand the toughest mechanical and environmental conditions.

# Quick Release Towing Hook

The Quick Release Towing Hook is the leading standard in today's maritime industry. Shipyard and tugboat crews all over the world appreciate our towing hook as self-evident piece of equipment. Over a hundred years ago Mampaey Offshore Industries designed and engineered the first Quick Release Towing Hook and is still leading in today's shipping. Globally a clear majority of renowned tug boat operators utilizes our standard range of towing hooks.

## Features of the Quick Release Towing Hook

- Towing with nylon, steel or polypropylene ropes.
- Anti-slip rope device (keepers).
- Small fairlead for the guidance of the manual release wire to the bridge/wheelhouse.
- Vertical Pin.
- Horizontal brackets for mounting to towing bit or towing winch.
- Foundation for mounting of the towing hook onto the deck.
- Spring shock absorber.
- Radial arm and fixed radial constructions.
- Optional of electric-pneumatic or electric-hydraulic remote control system.
- Continuous Towing Load Monitoring System.

## Benefits

Safe handling, releasing requires a manual effort of less than  $\pm 15$  kg at full SWL. The towing hooks have a proven lifespan of at least 30 years and has minimal maintenance requirements. No spare parts required for towing hooks fitted without remote control. The free swivelling eliminates the need for sliding and gliding plates.

# Quality Control and Customer Service

**We assure that the product complies with the applicable specifications and standards**

## Project Management

From the moment you purchase an order at Mampaey Offshore Industries our professional project management team will be your point of contact. This concerns the processes of engineering, development, calculations, manufacturing, assemblage, certification, documentation, testing, delivery and commissioning.

We work with technical sales engineers, project managers and electrical and mechanical engineers who are all specialised in towing and mooring equipment to manage all projects with the accurate know-how from begin to end.

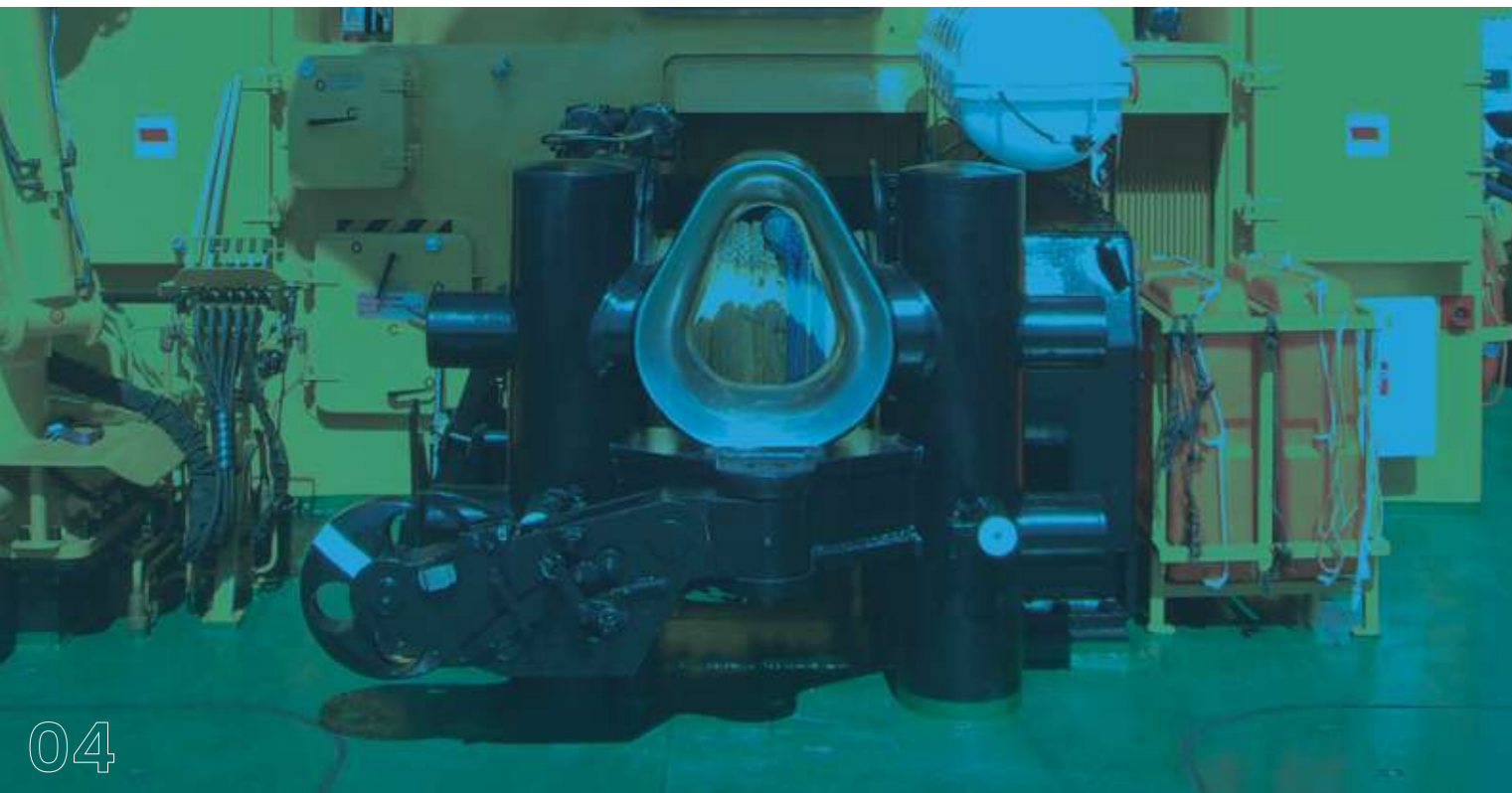
## Custom Solutions

Mampaey Offshore Industries provides tests before delivery of all products. We assure that the product complies with the applicable specifications and standards. All tests are performed in close cooperation with our customers and witnessed by a third party surveyor if requested. We are able to install the Quick Release Towing Hooks in conditions with temperatures below zero degree Celsius, even down to  $-50$  °C ( $-58$  °F).

## Testing & Certification

Mampaey Offshore Industries provides tests before delivery of all products. They assure that the product complies with the applicable classifications and the standards. All tests are performed in close cooperation with our customers and are approved by established institutions.

- Factory Acceptance Test (FAT)
- Certified Production Process



# Disc Type Towing Hook

The Quick Release Disc Type Towing Hook is especially designed for towing with polyprop ropes. Safe handling and releasing is possible with only a minimal manual effort of 15T at full Safe Working Load.

Mampaey Offshore Industries designed the Quick Release Towing Hooks specifically so towing lines can be released manually or remote controlled by means of pneumatic or hydraulic assistance.

Our standard range of towing hooks is able to safely handle workloads from 5 up to 150 metric tons. The towing hooks can be equipped with an electric-pneumatic or electric-hydraulic remote control systems for towing hook release by means of a pushbutton.

The benefit of the Disc Type Towing Hook is designed for a minimal total cost of ownership and with a long economic life cycle (more than 30 years). Minimum maintenance is needed and the hooks are free swivelling.

**Benefits**

- No high release impact on the hook and foundation because of the free rotating disc system.
- Towing with nylon and/or other polypropylene ropes as well as steel wire ropes.

**Especially designed for towing with polyprop ropes**

Type	Safe Working Load	Test Load	Release Load	Weight
DCX 5/7	70 kN	140 kN	70 kN	66 kg
DCX 8/15	150 kN	300 kN	150 kN	145 kg



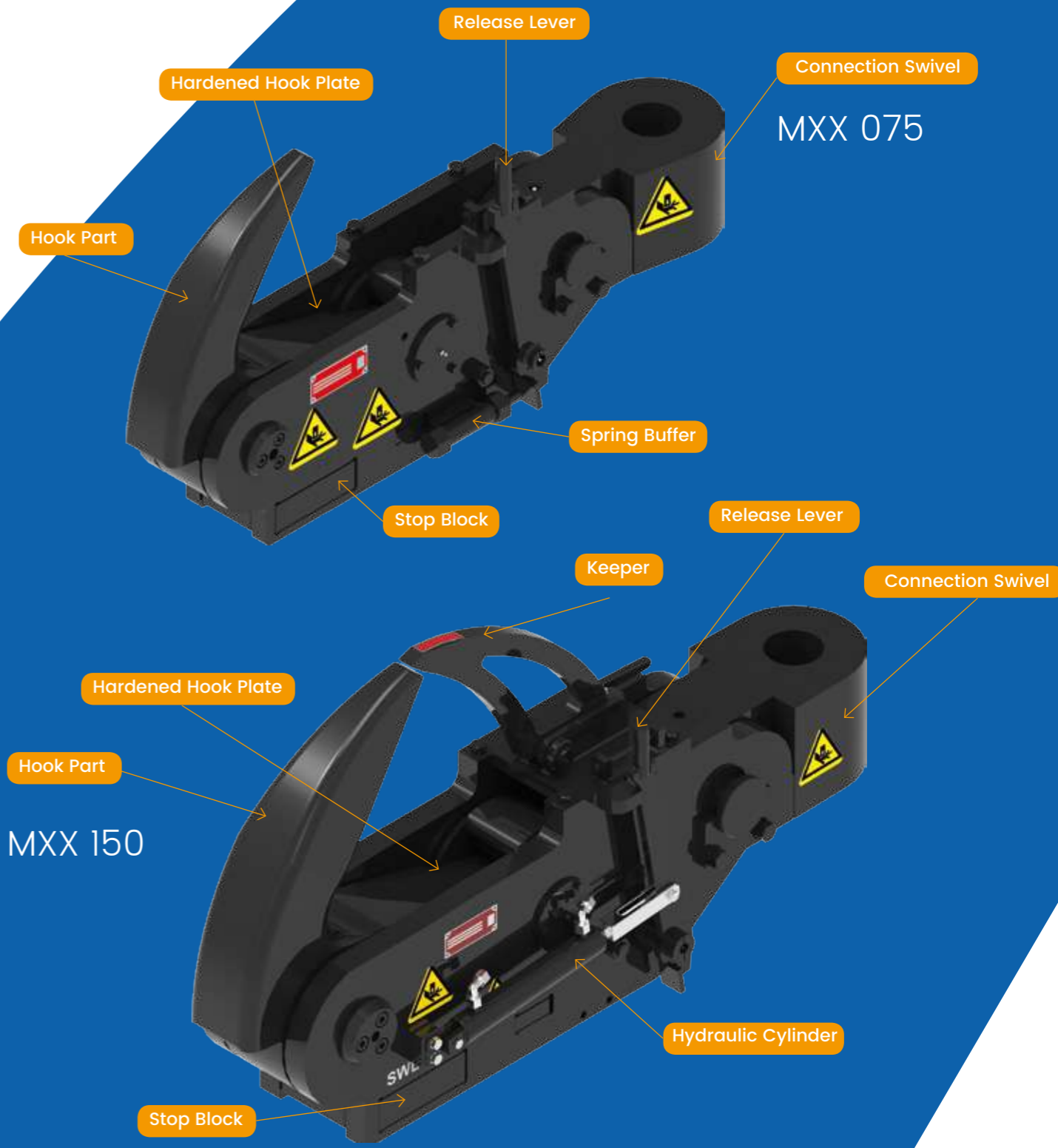
Type	Safe Working Load	Test Load	Release Load	Weight
DCX 18/25	250 kN	500 kN	250 kN	345 kg
DCX 30/45	450 kN	900 kN	450 kN	445 kg
DCX 50/65	650 kN	1300kN	650 kN	765 kg
DCX 70/100	1000 kN	1500 kN	1000 kN	1068 kg
DCX 100/150	1500 kN	2000 kN	1500 kN	1280 kg

# Harbour Type Towing Hook

The Quick Release Harbour Type Towing Hook is especially designed for towing with steel wire. The standard range harbour type towing hooks is available from 15 up to 150 metric tons Safe Working Load. Mampaey Offshore Industries designed the Harbour Type Towing Hooks specifically so towing lines can be released manually or remote controlled by means of pneumatic or hydraulic assistance.

- Benefits:**
- Designed for a minimal total cost of ownership and with a long economic life cycle (more than 30 years).
  - Minimal maintenance is needed
  - Free-swivelling hooks.
  - Safe handling and releasing is possible with only a minimal manual effort at full Safe Working Load of 15 kg

**Especially designed for towing with steel wire**



Type	Safe Working Load	Test Load	Release Load	Weight
MXX 015	150 kN	300 kN	150 kN	47 kg
MXX 030	300 kN	600 kN	300 kN	130 kg
MXX 060	450 kN	900 kN	450 kN	262 kg
MXX 075	562 kN	1125 kN	562 kN	320 kg
MXX 100	1000 kN	1500 kN	1000 kN	478 kg
MXX 125	1250 kN	1875 kN	1250 kN	551 kg
MXX 150	1500 kN	2250 kN	1500 kN	661 kg

# Optional Items

## Remote Control Systems

The Quick Release Towing Hooks can be connected with a release wire from the wheelhouse to be able to release manually. It can also be operated from the bridge and/or deck area with (a) push button(s) connected to a pneumatic or hydraulic system.

## Electric-Pneumatic

This system enables local and remote release of the hook. The system can be operated by normal push buttons on the bridge (or watertight versions on deck).

The signal activates a solenoid using the vessels compressed air system.

## Electric-Hydraulic

A hydraulic release cylinder can also be used for local and remote control. Mampaey Offshore Industries offers a complete hydraulic power pack or a ready to fit package for the vessels own hydraulic system.

## Load Monitoring System

With the Load Monitoring System a close and constant watch on the forces on the towing lines is kept. The system consists of a load cell, an amplifier and a remote display providing the real-time load information.

You can take immediate action in possible slack or overload situations. Alarms can be present upon Safe Working Load requirements.

The Load Measuring Pins are full bridged strain gauge based shear pins designed to provide a signal output directly proportional to the applied load. The load cells are typically installed into the rear horizontal swivel joint of the quick release towing hook.

With the information of all load cells the Load Monitoring System provides the following information:

- Real Time Load
- High Load Alarms (Hi and Hi-Hi)
- Low Load Alarms (Slack Line)

The load cells have many proven applications in the marine environment. They need minimal maintenance and have an excellent long-term stability. The loadcells are supplied pre-installed and calibrated into new quick release hook assemblies.

## Anti-Heeling Device

Anti-Heeling Device has been designed to measure the heel of the vessel and gives a release signal to the electric-pneumatic remote control set a predefined angle.

# Dynamic Oval Towing 360°

The Dynamic Oval Towing 360° (DOT® 360°) system adds safety, controllability and flexibility to the performance of tugs. It enables the tugs to rotate in all directions in a safe and controlled manner. The rotation is irrespective of the heading of the assisted vessel. In exposed conditions this capability allows the tug to meet waves safely with its bow forward. In confined spaces assisting vessels is much safer: the 360° all round towing system makes the tug's full power available in any direction.

The oval shape of the Dynamic Oval Towing 360° bridges the distance between the towing points for sailing ahead or astern. There are towline forces above and hydrodynamic forces below the water. With just one integrated system, the towing direction can easily be changed between bow and stern.

## Benefits

- Safe and controlled at low and higher speeds.
- Optimal manoeuvrability
- Possibility to use on new build or retrofitting's on existing tugs
- Width, length and specific curve can be customized to meet the owner's requirements

## DOT® Benefits Proven

In 2008 the first vessel was built for the Peterhead Port Authority (Scotland) and many more Tugs have been equipped with the advanced DOT® 360° system. The DOT® 360° system makes towing at low and higher speeds safe and controlled.

Mampaey Offshore Industries received the prestigious award 'Most innovative Dutch company in 2007' for the DOT® 360° system.



# Our Offices and Agents near you

Head Office: The Netherlands





**mampaey**<sup>®</sup>

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Disclaimer: Due to continuous development, Mampaey Offshore Industries B.V. reserves the right to change specification without notice.

