



# Adria Winch



- 1 Anchor-Mooring and Mooring Winches**
- 2 Anchor Capstans and Warping Capstans**
- 3 Research Winches and Handling Solutions**
- 4 Towing Winches**
- 5 Fishing Winches**
- 6 Tugger Winches**
- 7 Cargo Securing Winches**
- 8 Spare Rope Reels**
- 9 Mooring Systems**
- 10 Hydraulic Power Units**
- 11 Control Systems**

## About Adria Winch

Founded in 1993. Since that time AW has been active in the field of designing and manufacturing of high quality deck machinery. In the meantime we established our reputation for quality by delivering machinery that is reliable and trouble free.

## Design Office / Production Facility

All AW winches are 100% designed and produced in our factory in Split. Most of them are built on custom basis. Compete in-house mechanical, electric and software design together with production and testing facility give us opportunity for quick learning of new designers and in site optimisation of final products.

## AW aim

We work from partner perspective with our costumers, ship design offices and class societies. By maintaining close dialogues with clients, we are committed to find the best technical solution. Clients from all over the world come to us to develop very special winch systems and they consign us to manage their biggest projects.





## A complete supplier

AW is world wide supplier of deck machinery. Our main focus are offshore and naval vessels, but we also supply equipment for tugs, merchant vessels and yachts.

Owners of our winches consider the equipment to be strong, robust and reliable - an image that came with small steps, and day after day we make technical leaps forwards. Based on that in last twenty years we developed wide range of products.

Our quick reaction and flexibility in technical and commercial terms has managed that AW is first choice for shipyards and shipowners for lots of projects.

The custom AW winches, are built to meet demanding technical characteristic and extreme weather conditions in harsh environments.

AW winches are well-known for their compact and optimized design which ensure high reliability during operation, low costs of maintenance and long product life span.

Used materials and design solutions are environmentally friendly and decrease energy consumption.

## Production facility

Adria Winch has fully equipped production facility with conventional and numerically controlled machine tools, heat treatment, welding facilities, paint shop and assembly department, capable for most demanding tasks in production of mechanical, hydraulic, electro-energetic and electronic equipment.

A new CNC machines, welding, sandblasting, thermal-spray metalization and painting chambers, plasma cutters, cranes have been installed to match the highest requirements in manufacturing various type of components for marine equipment.

All production facilities and especially sandblasting and paint workshop are built according to the latest environmental standards.

## Equipment

- Anchor-mooring and Mooring Winches
- Anchor Capstans and Warping Capstans
- Research Winches and Handling Solutions
- Towing Winches
- Fishing Winches
- Tugger Winches
- Cargo Securing Winches
- Spare Rope Reels
- Mooring Systems
- Hydraulic Power Units
- Control Systems





# Anchor-mooring and Mooring Winches

6

Adria Winch produces many types of cable lifter units and combined anchor/mooring winches, depending on specifications. The compact design of AW anchor/mooring winches, combined with an integrated cable lifter makes it easier to pay out and haul the anchor, or to moor a ship.

It's fully sealed transmission housing allows maximum operating safety while oil-bath inside housing ensures long life of gear wheels and low maintenance of equipment in general.

Winches are built with steel frames and gear-boxes either metalized or finished with marine grade coatings for corrosion resistance. Gears and shafts are made from high quality cast alloy steel for strength and durability in the harshest conditions.

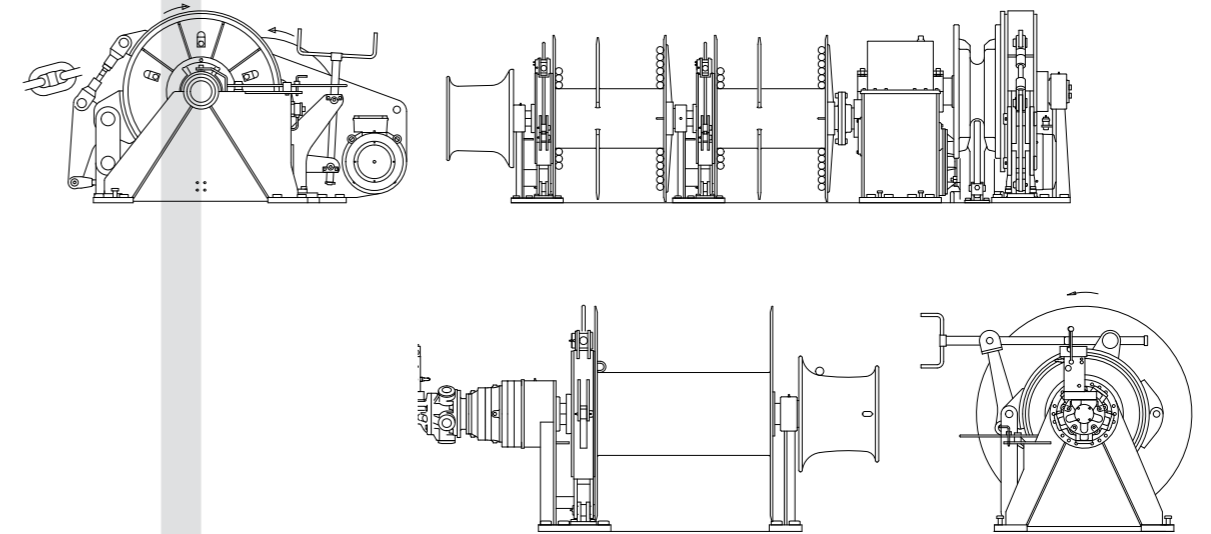
All winches can be electrically or hydraulically driven.

## Features /

- Chain dimensions from 11 to 81 mm, pull up to 350 kN
- Arrangements according to customers requirements
- High torque and high rope speed
- Speed control by pole-changing AC electric motor or step-less speed by frequency inverter
- High pressure hydraulic drive
- High brake holding power with stainless steel bolts and bushings in all movable parts

## Options /

- Hydraulically operated clutches
- Hydraulically operated fail safe brakes
- Stainless steel brake rim
- Local/Bridge control
- Remote automatic anchor drop / PLC controlled chain speed (1÷3 m/s)
- Automatic mooring control system with electronic load sensing



7





# Anchor Capstans and Warping Capstans

8

AW's range of anchor warping capstans for anchor chains with diameters ranging from 11 to 56 mm as well as combined anchor-warping capstans and simplified anchor-only design.

All capstans can be electrically and hydraulically driven. The same applies to our standard warping capstan without lifter part which are also fitted vertically on the deck. Warping capstans can also be specially designed so that the drive motor is contained in the warping head if there is space restriction below deck.

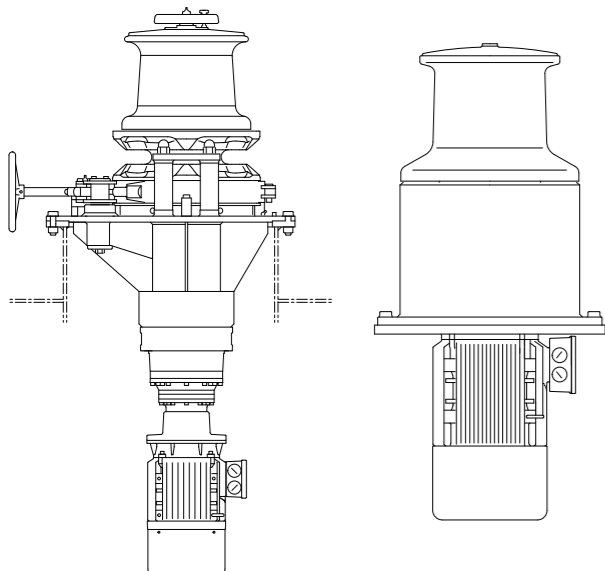
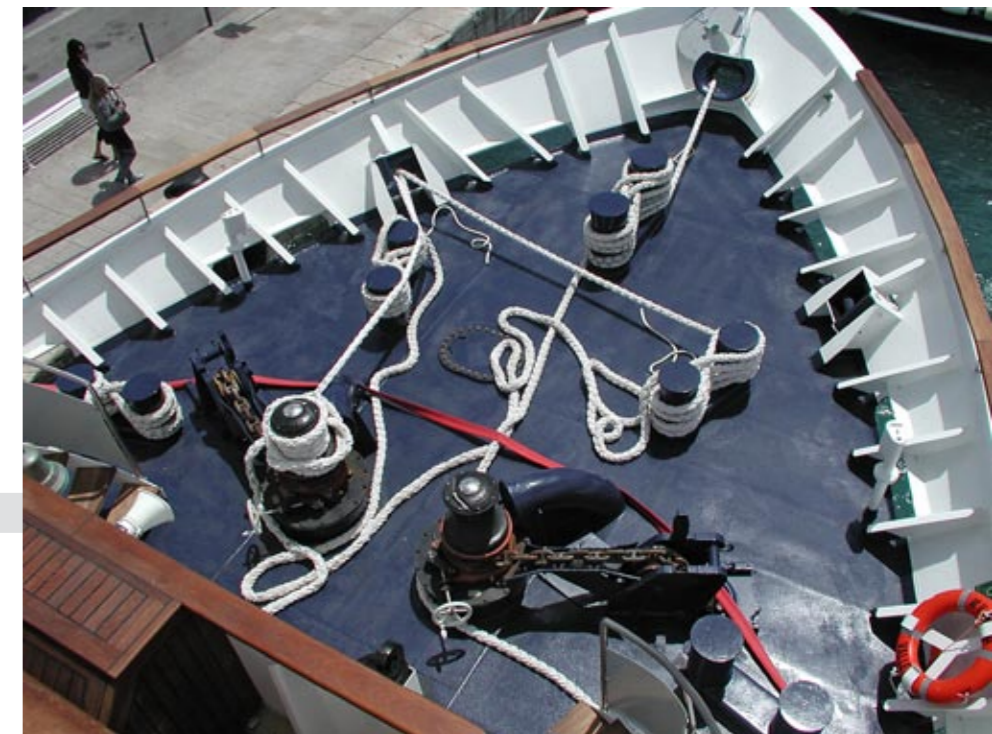
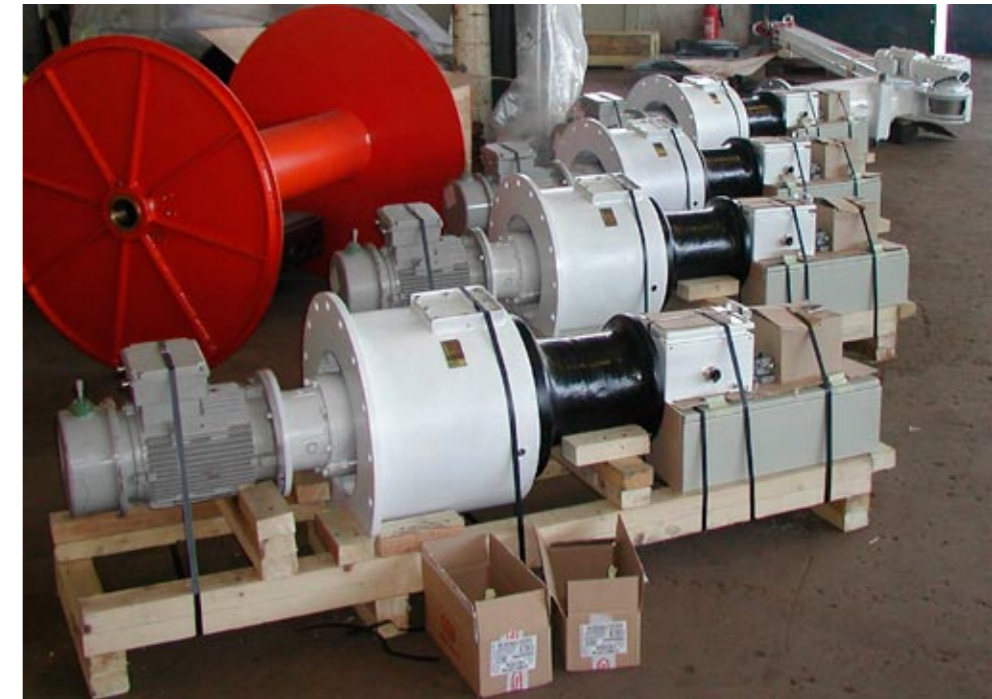
On request, anchor-warping capstans can be fitted with remote-controlled cable lifter brake systems for automatic anchor release of and with additional information about chain length and speed.

## Features /

- Chain dimensions from 11 to 56 mm, pull up to 250 kN
- High brake holding power with stainless steel bolts and bushings in all movable parts
- Capacities in accordance with all relevant class requirements

## Options /

- Hydraulically operated fail-safe brakes
- Stainless steel brake rim
- Local/Bridge control
- Remote automatic anchor drop / PLC controlled chain speed (1+3 m/s)





# Research Winches and Handling Solutions

10

Systems are composed of sophisticated winches and deck handling hardware: a tilting A-frames or custom designed launch and recovery cranes equipped with tools docking carriage. Systems are designed for personnel safety and gently handling of umbilical cables, instruments, underwater tools or ROVs.

Different configuration of system can be tailored /

- A-frame handling system
- L&R Crane handling system
- Container mounted
- Ready for deck mounting

## Winches

Winches are designed for rough and demanding offshore conditions. With possibility for local and/or remote control. It can be delivered with different configurations ranging from simple control to advance system with multiple displays.

Winches with sufficient capacity to accommodate the required length and diameter of umbilical, conducting cables or ropes in compliance with system requirements.

Winches are driven by /

- Permanent Magnet electric motors
- AC electric motors – pole-changing or frequency controlled
- Axial piston or radial piston hydraulic motors

## A-frames and L&R Cranes

Adria Winch offers A-frames and custom tailored L&R Cranes having safe load handling up to 250 kN and 8 meters outreach. Can be delivered as self-contained or self-erecting units, for stern or side outreach.

## Technical Information /

|                                      |                 |
|--------------------------------------|-----------------|
| <b>SWL</b>                           | Up to 250 kN    |
| <b>Recovery speed</b>                | Up to 200 m/min |
| <b>Operational depth</b>             | Up to 8000 m    |
| <b>Number of the cable layers</b>    | Up to 30 layers |
| <b>Impact resistance</b>             | Up to 8G        |
| <b>Over deck outreach</b>            | 8 m plus        |
| <b>Operating ambient temperature</b> | -40°C / +50°C   |

## Controls

Winches are equipped with control systems that manage, control, and inform or limit /

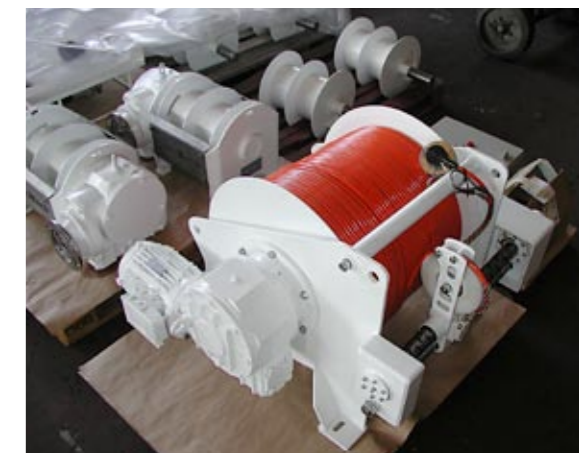
- Load in ropes/cables
- Speed and lengths of rope/cable feeding off
- Loading of transmission element, drive motors and drive energy

Equipment for measuring and information transmitting /

- Absolute rotary encoders for the precise measurement of lengths of rope, placed on the axis of the drum or on outgoing pulley
- Load cells built into the gearbox or the pulleys, for measuring force and gearbox torque and pull in the rope
- Slip rings to download signals from submerged research devices

Digital instrumentation and comfortable color LCD touch screens is used for programming of the equipment functioning and a comprehensive display of information on the operations.

11





# Towing Winches

# 4

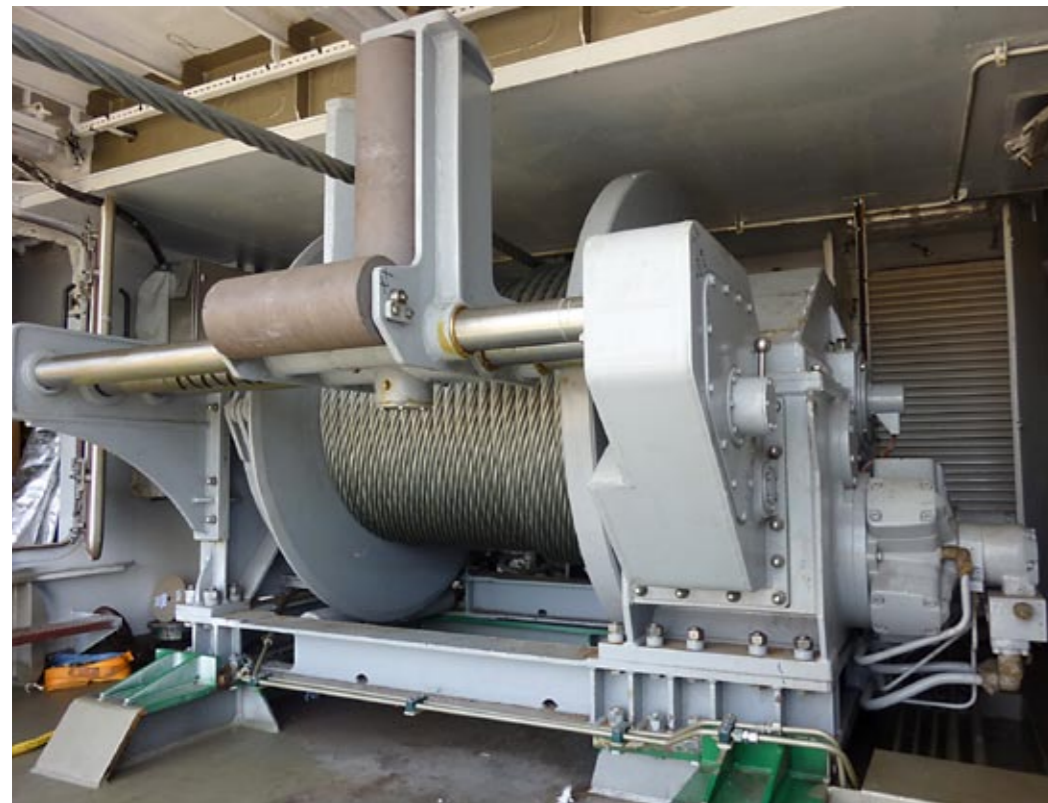
AW can provide custom designed towing winches, single and double drum in waterfall or in-line configuration. Winches can be tailor-made to meet all deck arrangements or other customer requirements. The design corresponds to the international regulations as well as to the rules of maritime class societies.

### All winches are equipped with /

- spooling devices
- quick release function – operating even in power supply shortage
- friction clutch for torque transmission
- load cells with amplifiers for force measuring
- drum encoder for rope speed and length measuring device
- PLC controller for winch operations and logics

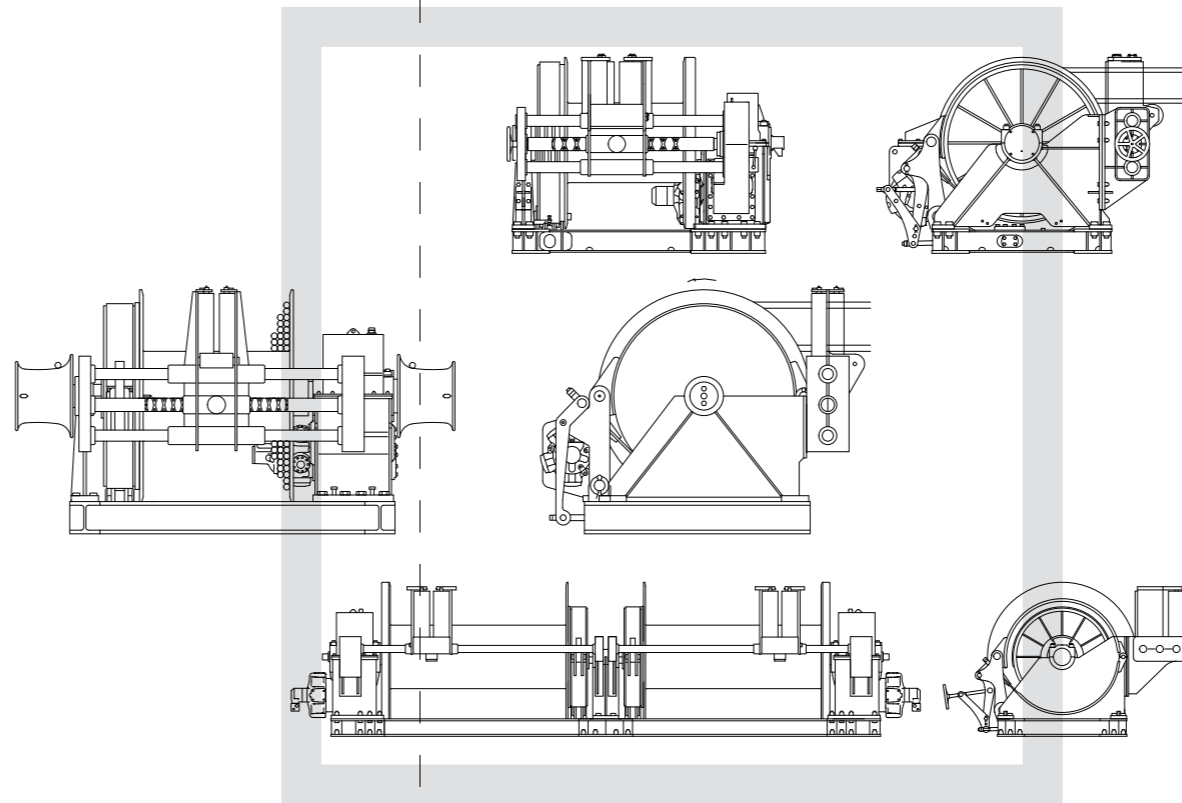
AW Towing winches are driven by high pressure hydraulic motors or frequency controlled electric motors. The technical solution is with enclosed gears, submerged in lubricating oil. Robust design allows operation in all conditions. All equipment is suitable for work at temperatures as low as -40°C.

Control software is programmed to cover all winch operation modes. Local and bridge control panels are based on comfortable touchscreen HMI unit. Integrated HPU unit provides hydraulic power for automatic operated clutch and winch brake. Manual operation of the brake and clutch is provided in case of emergency.



### Technical performances /

|                      |   |
|----------------------|---|
| <b>Drive</b>         | Electric / Hydraulic  |
| <b>Configuration</b> | Customized options<br>single and double drum  |
| <b>Rated pull</b>    | Up to 125 tons  |
| <b>Clutch</b>        | Manually / Remote<br>Hydraulically /<br>Automatic quick release                       |
| <b>Control</b>       | Local and / or remote<br>control / emergency<br>functions automatically               |
| <b>Options</b>       | Constant tensioning mode<br>/ static brake slippage / in-<br>out action nominal power |



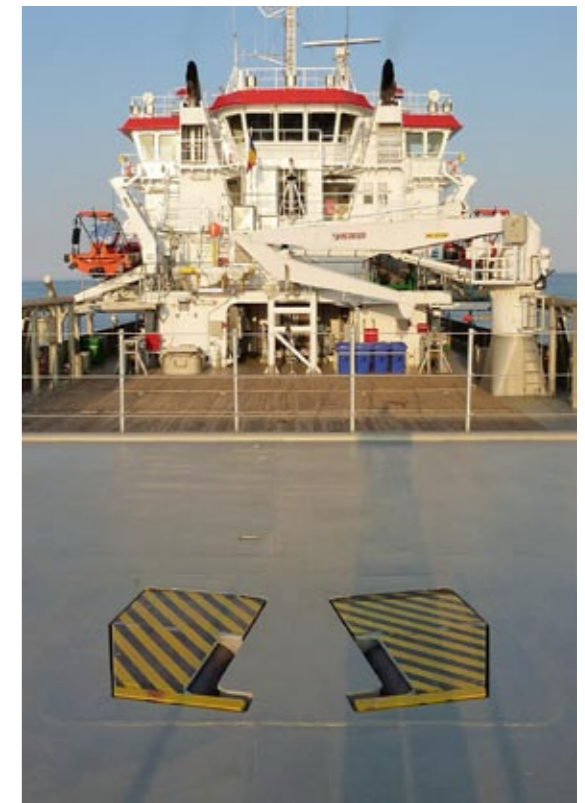
### Towing Pins

AW has original innovative towing pins solutions which are preferably used for shallow draft vessels which have limited under-deck space.

### Our solutions have several unique features /

- extremely low underdeck profile
- easy rotating pins – which prevents rope damage by avoiding rope friction over roller
- safe, long life sealing

AW provides also different tailor-made towing pins solutions for deck rope guidance satisfying specific customer needs.





# Fishing Winches

14

AW produce a flexible size of heavy duty fishing winches which are used as main or auxiliary winches on vessels. All winches are based on the latest technology and close customer cooperation through every project. We offer customized winch solutions for all types of fishing vessels, fishing research vessel and multipurpose vessels.

The power source for fishing winches can be electrical or high pressure hydraulic according to customer requirements. With their totally enclosed reducers, robust design and metallization as surface protection are excellent choice for reliable equipment suitable for toughest sea conditions.

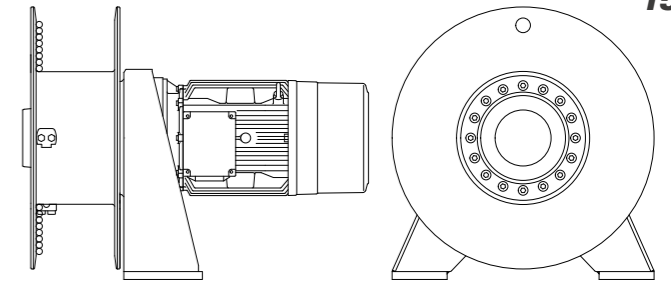


# Tugger Winches

15

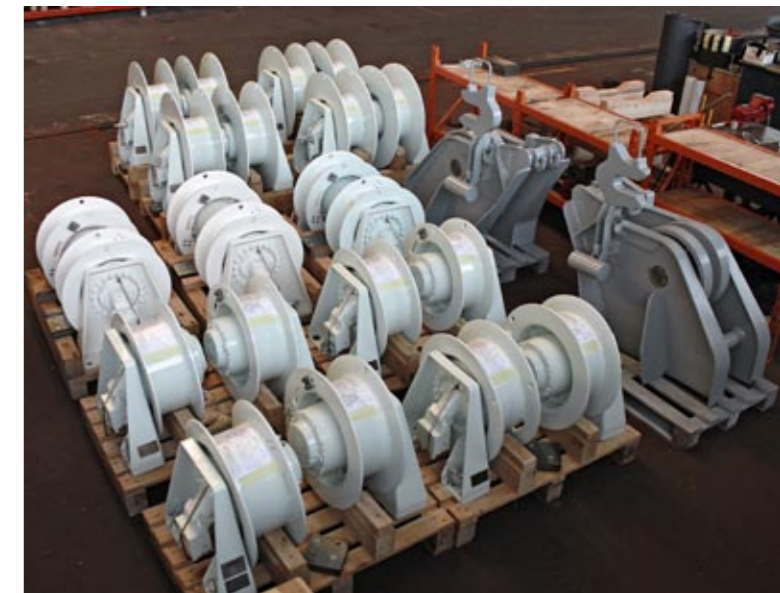
AW offers a wide range of different tugger winches. The robust design allows safe and long-term operation in harsh environment conditions. Winches are electric or hydraulic driven.

We offer various options according to customer's requirements with a manual brake, clutch and warping head. There are various control options: local, remote with wire or radio control, bridge control.



## Technical Information/

|                               |  |
|-------------------------------|--|
| <b>Drive</b>                  | Electric / Hydraulic                     |
| <b>Configuration</b>          | All options with drums and warping heads |
| <b>Rated pull (1st layer)</b> | Up to 25 tons                            |
| <b>Brake</b>                  | Automatic disk brake                     |
| <b>Wire speed (1st layer)</b> | Up to 50 m/min                           |
| <b>Control</b>                | Local and remote control                 |





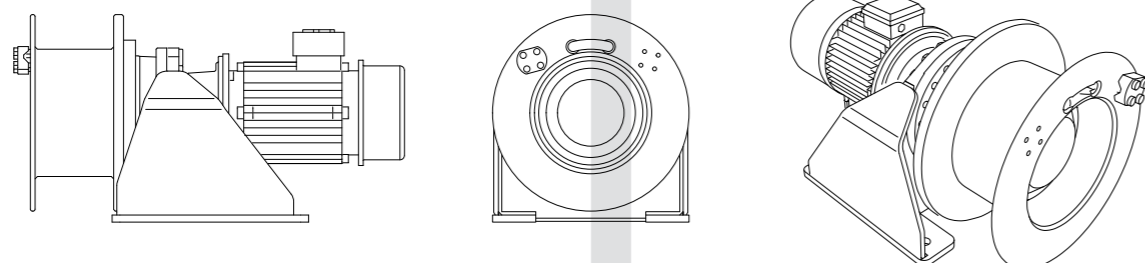
# Cargo Securing Winches

16

Winches for securing different equipment on deck. Electric or hydraulic drive.

## Technical Information /

|                               |                          |
|-------------------------------|--------------------------|
| <b>Drive</b>                  | Electric / Hydraulic     |
| <b>Rated pull (1st layer)</b> | Up to 10 tons            |
| <b>Brake</b>                  | Automatic disk brake     |
| <b>Capacity</b>               | On request               |
| <b>Control</b>                | Local and remote control |



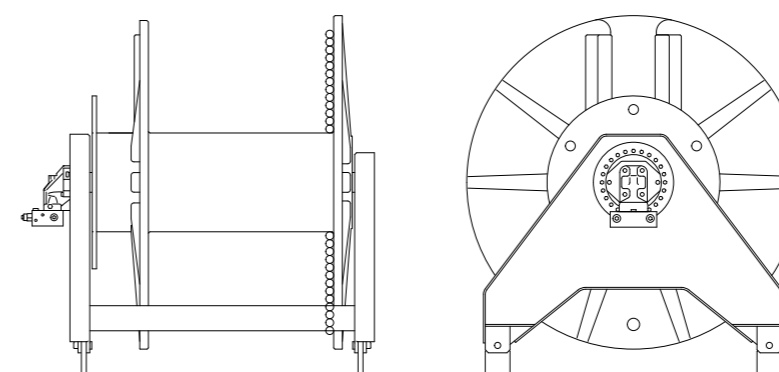
# Spare Rope Reels

17

AW makes range of wire rope reels for a wide range of wire rope diameters and lengths. Compact solution allows long term operation without failures and low maintenance requirements. Rope Reels can be delivered with or without a spooling device and constant tension option for safe winding and paying out.

## Technical Information /

|                               |                             |
|-------------------------------|-----------------------------|
| <b>Drive</b>                  | Electric / Hydraulic        |
| <b>Rated pull (1st layer)</b> | 2–15 tons                   |
| <b>Brake</b>                  | Automatic disk brake        |
| <b>Capacity</b>               | On request                  |
| <b>Control</b>                | Local and/or remote control |





# Mooring Systems

18

Adria Winch have ability to provide different multi-point mooring systems for crane and excavator barges, offshore supply and survey vessels.

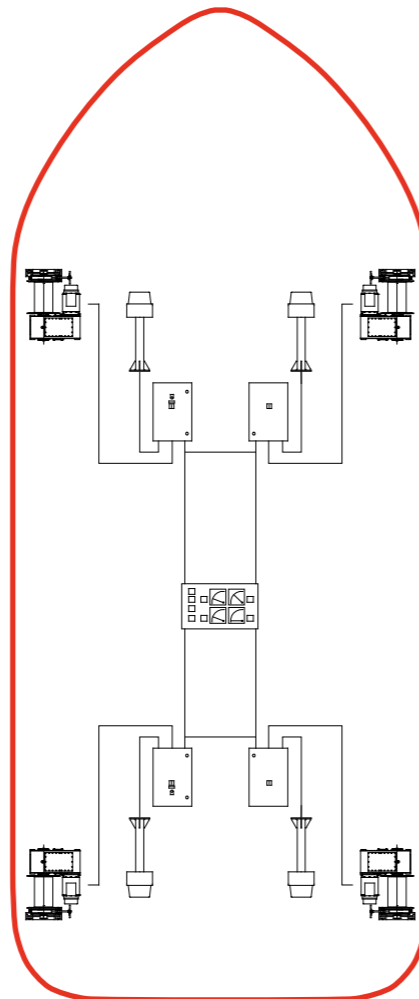
A mooring system describes a set of components: winches, centralized control system, electric cabinets power packs and fairleads used to confine a barge or vessel to a specific location and to hold it on station within defined limits.

Systems have wire tension and payout length control. Spooling system can be mechanical or driven by separate motor gearbox and electronically controlled. On buyer request winches can be equipped with emergency release device. Additionally are capable to release brake during Deadship conditions.

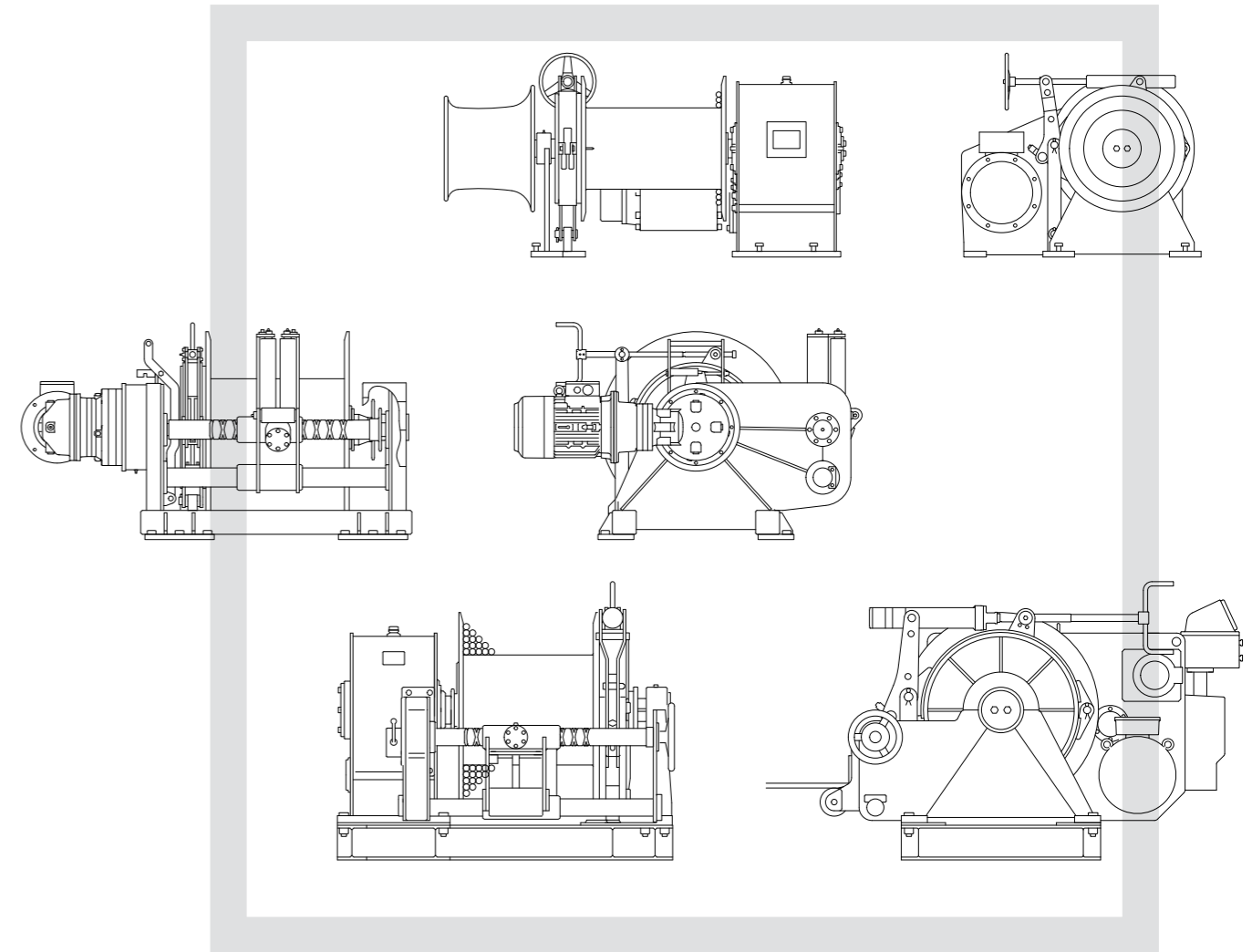
## Technical Information /

|                        |                              |
|------------------------|------------------------------|
| <b>Drive</b>           | Electric / Hydraulic         |
| <b>Rated pull</b>      | Up to 100 tons               |
| <b>Rope capacity</b>   | Up to 2500 m                 |
| <b>Clutch</b>          | Manual or hydraulic operated |
| <b>Fail-safe brake</b> | Manual or hydraulic operated |

Four point mooring system



19





# Hydraulic Power Units

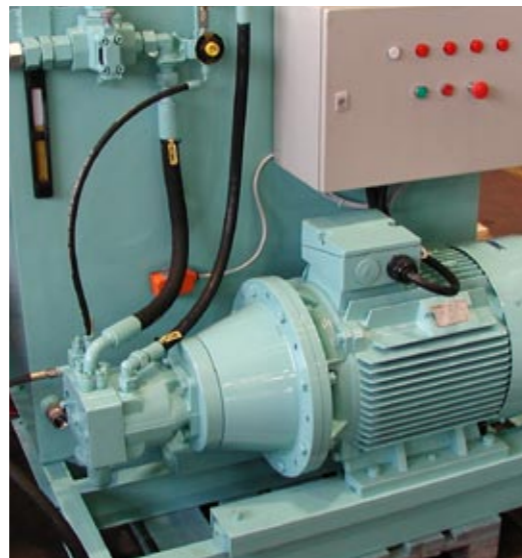
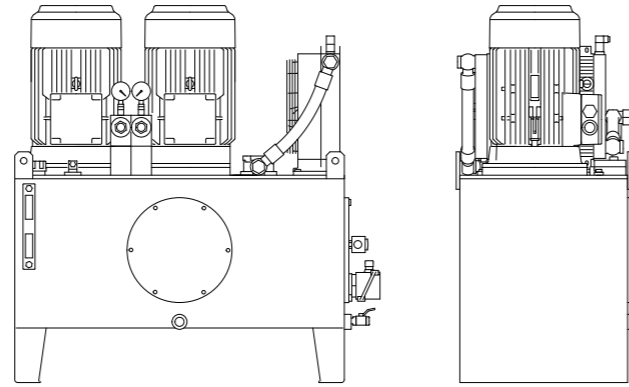
# 10

20

We design, and build tailor-made and standard Hydraulic Power Units for marine and offshore applications of hydraulic power units while using new generation of gear and axial piston pumps. Client can choose between fixed or variable displacement and constant pressure or LS regulated pumps.

## Main Characteristics /

- The pumps are placed outside the tank for easy maintenance
- Working pressure up to 350 bar, output from 5 up to 300 kW
- All power units are self-contained and skid mounted for easy shipyard installation
- Various types with 1, 2, 3 or 4 pumps installed with different capacities
- Simplified control of oil flow to meet variations in demand
- Various cooling arrangements to avoid limitations of operation
- Full flow filtration of return oil



# Control Systems

# 11

21

Our control systems can be used in conjunction with hydraulic as well as electrical winches and are designed to meet all the requirements from standard handheld controllers to advanced bridge control systems.

For smaller winches we provide wall mounted controllers, pendant control stations, radio remote control units and foot switches. For large and advanced winches we provide complete control systems (manual and automated) including deck mounted pedestal control panels as well as bridge control panels which are designed to easily control the winches in complex operations ensuring safety and reliability.

These control systems are built around a flexible and modular-based PLC system using the latest commercially available automation hardware and software with various selectable operator interfaces to fit the actual environment, enabling constant monitoring of the winch's important functions, alarm management and data recording with history access.

## Our product range comprises /

- Anchor Winch Control
- Automatic Mooring Winch Control
- Towing Winch Control
- Constant Tension Control
- Oceanographic Winch Control
- Active Heave Compensation
- Multi-winch synchronization





# Service & After Sales

Adria Winch offers a number of services to support its clients from the initial phase of defining and dimensioning the equipment and throughout their useful life. We recognize that each of our customers have unique operational requirements, we therefore tailor our services to suit.

The service is offered directly from our headquarters or through authorized service points located throughout the world.

## The following are the main services provided /

- Manufacturing of equipment
- Spare parts
- Technical assistance
- Installation and implementation
- Maintenance programs
- Operator training
- Upgrade of equipment

Adria Winch provides its clients with specialized technicians who travel around the world to service the equipment.

Our aim is to guarantee the maximum satisfaction and ensure that our customers extract optimum performance from their equipment throughout their life-cycles.

Our specialized technicians have a wide range of experience in the installation, start-up, maintenance and repair of equipment and installations.

**Safety and operational reliability of products is highest priority.**

[adriawinch.com](http://adriawinch.com)

# World-Wide Representatives



## RUSSIA / BRANCH OFFICE

Moscow office /  
Office 17A, Zybovsky Boulevard 29  
119021 Moscow, Russia  
Phone +7-495-7777063  
Mobile +7-915-3939093  
[portalimov@adriawinch.com](mailto:portalimov@adriawinch.com)

Nizhni Novgorod representative /  
Nizhni Novgorod, Russia  
Phone +7-831-433-2843  
Mobile +7-916-042-6588  
[baranov@adriawinch.com](mailto:baranov@adriawinch.com)

## USA & CANADA

M.I.E. Solutions  
and Equipments Inc. /  
12258 Catelli, avenue  
Montreal QC H1E 7R4, Canada  
Phone 1-514-821-1716  
Fax 1-541-989-9314  
[pboisclair@mie-solutions.ca](mailto:pboisclair@mie-solutions.ca)

## TURKEY

ARTI Denizcilik  
San. Tic. Ltd. Sti.  
Semsettin Gunaltay Caddesi  
No:198 D:8 Tuccarbasi  
34736 Kadikoy, Istanbul, Turkey  
Phone +90-216-3501066  
Fax +90-216-3501076  
[arti@artidenizcilik.com](mailto:arti@artidenizcilik.com)

## CHINA

Dragon Marine  
Engineering Co., Ltd. /  
Room 609, 2123 Pudong Avenue,  
200135 Shanghai, P.R. China  
Phone +86-21-68559010  
Fax +86-21-68559002  
[steerzeng@dragonmarine.net](mailto:steerzeng@dragonmarine.net)

## BRASIL

Foxoil do Brasil Ltda.  
Sócio Gerente /  
Rua Lady Esteves da Conceição,  
Qd. Z Lotes 11 e 12  
Novo Cavaleiros, Macaé,  
RJ, Brasil  
Phone +55-22-2105-1421  
Fax +55-22-2105-1444  
Mobile +55-22-9985-4153  
[tadeufaria@foxoil.com.br](mailto:tadeufaria@foxoil.com.br)

## SPAIN & PORTUGAL

Equipos Nornaval, S.L. /  
C/García Barbón, 89-3  
36201 Vigo, Spain  
Phone + 34 986 11 03 82  
Mobile + 34 639 81 25 98  
[fremsaeter@equiposnornaval.com](mailto:fremsaeter@equiposnornaval.com)

[adriawinch.com](http://adriawinch.com)



**Adria Winch d.o.o.**  
**Mostine 11B, P.P. 158**  
**21 000 Split, Croatia**  
**Phone +385-21-453-600**  
**Fax +385-21-453-620**  
**[www.adriawinch.com](http://www.adriawinch.com)**  
**[adriawinch@adriawinch.com](mailto:adriawinch@adriawinch.com)**