

## **d** Dégra

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COMPLETE HYDRAULIC SOLUTIONS | WINCHES & POWER PACKS | RENTALS | ENGINEERING PROJECTS



## EXTENSIVE RANGE OF WINCHES FROM STOCK

At DÉGRA, you'll find a comprehensive range of winches, including hoist winches, tugger winches, salvage winches, capstans, and more.

With over 150 winches in stock, ranging from 500 to 30,000 kg, we have the solution you need.

We offer complete hydraulic solutions. Whether you require turnkey winches and powerpack combinations, expert advice, or hydraulic system enhancements, we've got you covered.

# TEAM OF SPECIALIST MULTIDISCIPLINARY ENGINEERS & MECHANICS

At DÉGRA, we thrive on addressing technical problems. We have the expertise to swiftly implement practical solutions for immediate issues, and for more complex technical challenges, our team of dedicated engineers conducts thorough research.

On our team we haven specialists in mechanics, mechanical, hydraulic, and electric engineering.

Whether you need to enhance a hydraulic system, reduce noise, overhaul existing equipment, or tackle any other technical issue, we're here to help.





# LAUNCH PROJECTS QUICKLY WITH RENTAL SOLUTIONS

Get started quickly with rental equipment! Our range of rental equipment is just as wide as our product range. There are many rental options and we can provide customization of both winches and power packs. In addition to a short delivery time and customization, we can mobilize and handle winches. Using rental equipment is a great solution while working on temporary projects.

# RENEW YOUR OPERATIONS WITH **OVERHAULED USED EQUIPMENT**

Used equipment like new! In the past years we've done some high quality overhauling projects. A number of these projects can be found in this brochure.

Overhauling of used equipment is in many cases interesting and particularly sustainable. Overhauling also provides a change to apply new techniques on outdated equipment. Think of modern CAN-bus controls. This way existing equipment can be used as new.



### **BUILDING A SUSTAINABLE FUTURE**

Being a family-run business, we constantly consider the long-term implications of our decisions on both the world and future generations. To ensure a sustainable future, we actively engage in various initiatives, including:



#### **Sustainable Construction**

Our commitment to durability is reflected in our construction methods, which prioritize robust and long-lasting materials. Our winches and power packs, for instance, boast extended lifespans, reducing the need for frequent replacements.



### **Overhauling and Reuse**

We champion the reuse of existing materials, demonstrating our dedication to minimizing waste. Our specialization in overhauling ensures that items can be given new life, reducing the demand for new resources.



### Biodegradable Oil

We are progressively shifting towards the use of biodegradable oil, a choice that not only extends the life of machinery but also prevents environmental contamination. This move aligns with our commitment to preserving the integrity of soil and water.



### Solar Energy

As early as April 2019, we have been harnessing the power of solar energy through the installation of 390 solar panels. These panels are capable of generating more than 500 kWh on sunny days, illustrating our commitment to renewable and eco-friendly energy sources.







### **ENHANCING OFFSHORE WIND** LIFTING OPERATIONS WITH HIGH DYNAMIC TUGGER/ STEERING WINCH SYSTEM

In the offshore wind sector, precise load control is essential as components grow larger. DÉGRA, a trusted provider of (tugger) winch systems for various offshore applications, ensures load stability.

However, conventional tugger winches face limitations with increasing load size, leading to issues like slack ropes, shock loads, and potential damage. We've responded with our High Dynamic Winch, an advanced solution.

- · High dynamic control of speed and line pull
- High accuracy of winch drum position
- Possibility of storage and recovery of energy
- Relatively low required installed amount of power
- Continuous stable electric power demand from the vessel Able to prevent slack rope conditions
- Precisely controllable dead band of winch pull force in constant tension mode. Single frame solutions possible, two tugger winches and control system all mounted in one frame
- Short commission times

find out more benefits on our website www.degra.com.

## PARTNER IN LIFTING SOLUTIONS AND ENGINEERING

We offer winch rentals and sales, ocomprehensive engineering services, provide construction solutions, and handle overhauling projects. With a wide equipment inventory, we're ready to support your projects. Explore some of our past projects below.

## **QUICKLY GET STARTED WITH YOUR**PROJECT USING RENTAL SOLUTIONS

Turnkey solutions that are quick and user-friendly for launching complete projects. Rental solutions can also be customized to fit specific projects. We deliver promptly from our extensive stock, with over 150 winches ranging from 500 to 30,000 kg readily available.

#### **TECHNICAL SPECIFICATIONS**

- 2x DHW 344 tugger winches
- with break load reduced to 7.5 tons
- 1 x 22kW HPU + remote control
- 2 x Swivel fairlead 18 mm
- Dyneeme rope
- Transport
- Commissioned on-site and fully turn-key for immediate use.











# 2 HYDRAULIC WINCHES WITH ROTARY LIMIT SWITCH A VERSATILE SOLUTION

Winch equipped with a hydraulic rotary limit switch, adjustable for various rope lengths thanks to multiple available ratios. Designed for use in combination with a hydraulically controlled shut-off valve, with the valve size determined based on the required flow rate. It features a stainless steel housing for marine durability and is suitable for use in an EX zone. Plus, it operates without electricity, relying only on A, B, and drainage.

#### **TECHNICAL SPECIFICATIONS**

- 14 x DHW22-10
- Linepull: 1 ton 3rd layer @ 110 bar
- Linespeed: 20 m/min 3rd layer @ 25 l/min
- Cable diameter: Ø8
- Cable storage: 25 meter in 3 layers
- Rotary limit switch: hydraulic, min/max

## TECHNICAL FEATURES OF 20-TON SPUDPOLE WINCHES

In 2023, we delivered two 20-ton Spudpole winches equipped with axial piston motors, switchable to 1/3 of the pulling force for triple retrieval speed. These winches are designed witho tidal position integration in the manifold with an accumulator. Tidal position integration is also available in the HPU for both winches. Customization options are available.

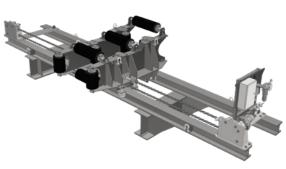
# REEL DRIVE SYSTEM DESIGN & BUILDING HIGHLIGHTS AND TECHNICAL SPECIFICATIONS

This reel drive system is designed for the controlled unwinding or winding of large, heavy reels or spools of materials such as cables, wires, hoses, or flexible pipelines. The primary function of the reel drive system is to ensure a controlled and consistent distribution of the material from the reel.

#### HIGHLIGHTS AND TECHNICAL SPECIFICATIONS

- Driven and controlled hydraulically, incorporating planetary gearboxes with hydraulic disc brakes and 200 cc radial piston motors.
- Dynamic Pull (RDS): 50 kN on the second layer (R=3527 mm).
- Static Holding Load (RDS): 12.5 metric tons on the second layer (R=3527 mm).
- · Loaded Reel Mass: 32,500 kg.
- Reel Speed: 1.5 revolutions per minute.
- Power Requirement: Approximately 45 kW.
- The support, equipped with a reel support bearing, includes a sliding skid for easy reel installation.
- Features wireless remote control for both drive and spooler operation.
- The reel drive system is designed in two or more sections, making it suitable for road transport.
- The spooler is hydraulically driven and can be manually controlled with a radio remote.







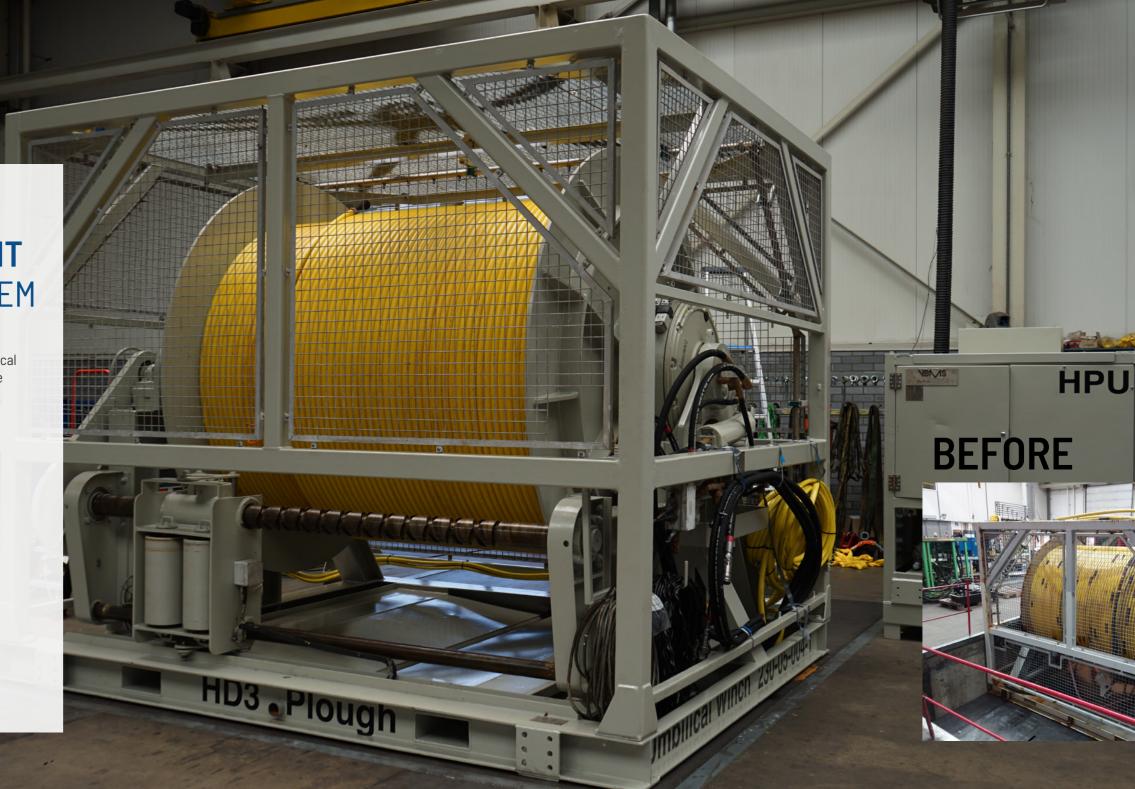
# COMPLETE REFURBISHMENT OF UMBILICAL WINCH SYSTEM

This year our team finished an extensive refurbishment of an umbilical winch and its associated hydraulic power pack. This is how we make existing equipment new again.

The following work is executed during the overhaul:

- Thorough cleaning with dry ice
- Disassembly of both the winch and HPU
- Replacement of all worn components
- Sandblasting and applying a protective coating
- Non-destructive testing (NDT)
- Official overhaul of the Hägglunds motor
- Functional testing
- Refilling the HPU with eco-friendly Panolin biodegradable oil

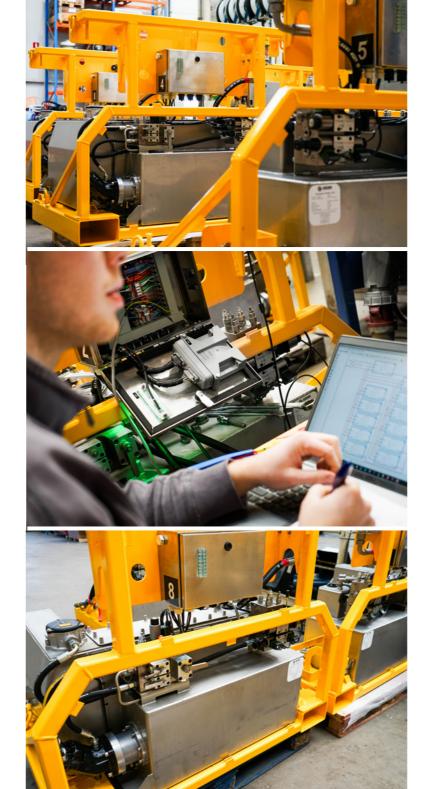
As a Bosch Rexroth service partner, we specialize in the repair, refurbishment, renewal, and adjustment of Hägglund motors.



# ENHANCING CABLE CAROUSELS WITH NEW ELECTRIC HYDRAULIC POWER UNITS

We managed the entire process, from initial design to on-site installation and commissioning of two brand-new 450 kW Electric Hydraulic Power Units (EHPU) for the recently acquired carousels. Our team successfully delivered two 450 kW closed-loop electric HPUs, ensuring the seamless operation of three 9000-ton cable carousels.





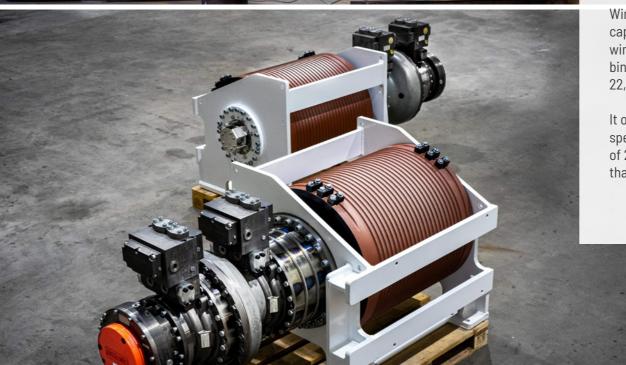
### PRECISE CONTROL FOR MONOPILE LIFTING

In a collaborative effort with Mammoet, we undertook the design, construction, and commissioning of 8 "Jacking System" power packs and control systems. The Jacking System is a critical component, adding an additional 600 mm of stroke when lifting XXL monopiles. This intricate system seamlessly integrates hydraulics and Hydro-CAN controls.

Each individual Hydraulic Power Unit (HPU) is equipped with its own controller and a length measuring system, enabling communication via a CANBUS line with the main control box. A user-friendly interface displays all the necessary settings for the lift, and the actual lifting process can be controlled effortlessly using a radio remote control.







# VERTICAL DRAINAGE INSTALLATION WINCH SYSTEM

Winch designed for vertical drainage installation rigs, capable of operating at depths of up to 40 meters. The winch features a Hägglunds direct tandem drive, combining a CA140 and CA210 with a total displacement of 22,000 cc.

It offers a maximum drum line pull of 30 tons, a top line speed of 215 m/min, and a maximum power consumption of 250 kW. Equipped with a fully automatic control system that adjusts speed and line pull based on soil hardness.















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DÉGRA ACADEMY

We aim to expand our academy in the coming

years and share knowledge with those interested in (offshore and maritime) technology.

### STORAGE & USED EQUIPMENT Our premises is over 6.750 m2.

### SUSTAINABILITY Our building has 390 solar panels, generating over 500 kWh on sunny days.

### HYDRAULIC TEST FACILITY

### WITHINGELO TEOT TAO

### SERVICE ON SITE

**WORKSHOP & PROJECT AREA** 

tackles technical projects and hydraulic challenges. We have two 16-ton overhead cranes and crawler crane

In our 1,300 m2 workshop, our team

servicing facilities.

### PROJECT & ENGINEERING OFFICE

With our project team we share 420 m2 office space to organise engineering, project management and administration.

#### LARGE STOCK

Over 200 (spare) parts and winches on stock.

# DÉGRA ACQUIRES **HYDRO-CAN ENGINEERING**

In 2023, Dégra proudly welcomed Hydro-CAN Engineering into our fold, ushering in a new era of knowledge and technology integration. Our journey with Hydro-CAN began with close collaboration, discovering that our strengths complemented each other seamlessly. With Hydro-CAN's wealth of experience and expertise, we aim to meet the growing customer demand for intelligent machine control systems.

Our family-oriented culture, coupled with Hydro-CAN's technical ingenuity, has created a harmonious union. This synergy has set the stage for an exciting journey filled with new possibilities, expanding our spectrum of offerings.



### **BOSCH REXROTH**

#### **SERVICE PARTNER**

Since the start of 2020, DÉGRA is a service partner of Bosch Rexroth. Bosch Rexroth is a leading specialist in drive and control technology. As a service partner, you can come to us for advise, repair, maintenance and purchase of Bosch Rexroth products.

#### **MAINTENANCE AND REPAIR**

As a service partner of Industrial hydraulics, Mobile hydraulics and Motion & control we combine our hydraulic knowledge with years of experience and leading products from Bosch Rexroth. With our support in the field of maintenance and repair, you can count on the quality of Bosch Rexroth parts and the clear and fast communication of DÉGRA.



### ABOUT **DÉGRA**

DÉGRA, established in 1977 by Jan-Piet and Jannie de Graaf, is a family-owned business. In its early years, the company primarily focused on custom suction dredgers, ditch machines, and hydraulic systems.

Over the recent years, DÉGRA has significantly expanded its services. With a dedicated team of more than 30 professionals, we have evolved into a service-oriented hydraulic specialist, capable of delivering project solutions.

Apart from our core winch offerings, DÉGRA provides comprehensive hydraulic, mechanical, and electrical solutions. In addition to providing turnkey winches and powerpack combinations for sale or rent, we offer consulting services and improvements for hydraulic, mechanical, and electrical systems.

