C ACE Winches

AN ENGINEERING AND SERVICE TEAM YOU CAN DEPEND ON

www.ace-winches.com



Total solution Provider

ACE Winches is a global leader in the design, manufacture and hire of lifting, pulling and deploying solutions and the provision of associated hire personnel for the oil and gas, marine, decommissioning, civil engineering and renewable energy markets.

By developing partnerships with our clients, we can manage the total project solution from concept design through to manufacture, testing, installation, commissioning, operation, training and ongoing client support.

We deliver products and services to over 50 countries across all continents and continue to lead industry standards for quality and reliability. Our Norwegian base, ACE Winches Norge AS, in Stavanger offers bespoke winching solutions, hire equipment, personnel, refurbishment services and training across the Scandinavian markets.

We also have representation in France, India, Canada, Indonesia, Africa and Egypt.

We have a dedicated focus on exceeding and maintaining an excellent record of safety, quality and reliability









Divisions



Engineering

We are proud to give our clients a first-class engineering service, driven by the desire to provide a solution to any challenge. By engaging with our clients at the early stages of the project through to delivery, we can provide a full turnkey solution at any location globally.

Our experienced team of specialist engineers has amassed many years of experience, defining the design and manufacturing of lifting, pulling and deploying solutions, ensuring delivery to client time scales, budgets and specifications.



Manufacturing

Our manufacturing division is a solution provider with a proven track record in the design, manufacture, testing and installation of high quality standard and bespoke winch and other lifting, pulling and deploying equipment.

Our dedicated in-house design, engineering and manufacturing capabilities coupled with specialist expertise enable the production of tailored winch solutions within short lead times. All equipment is CE marked as standard and is designed in compliance with industry certification as required by the client.



Hire Equipment

We can supply a comprehensive range of winch and deck equipment equipment for rental on floating vessels, fixed offshore installations and landbased projects.

Our hire equipment fleet comprises of thousands of units, allowing mobilisation of unique packages to suit our clients' requirements. Whether short or long term rental, we are committed to the successful delivery of our clients' projects.



Hire Personnel

Our highly skilled hire personnel support our clients by operating the equipment onsite. Engineers with a specific skillset to operate the equipment can be deployed, increasing the life span of the equipment.

We have decades of experience in the marine and offshore industry, and our hire team hold, as a minimum, full offshore safety survival certification.



Services

We offer maintenance contracts, upgrades and commissioning services for our clients requiring the overhaul of existing winching equipment and deck machinery, whether originally supplied by us or a third-party.

We are an original equipment manufacturer, and global support is available 24/7 through our teams of qualified technicians. Master Service Agreements and Packages are available to our clients owning and operating ACE equipment and/or third-party equipment.



Winch Academy

ACE Winch Academy provides training for all aspects of winch and spooling operations as well as a variety of associated training programmes and competence management systems, for both our clients and our employees.

Training frameworks are available with specific focus on developing competency to ensure safedeployment, management and operation of winches and deck machinery. Our Winch Academy offers a series of core courses and bespoke programmes to meet our clients' needs, all of which can be delivered at the ACE Winch Academy or at the clients' operational site.

ACE ENGINEERING

We are proud to give our clients a first-class engineering service, driven by the desire to provide a solution to any challenge. By engaging with our clients at the early stages of the project through to delivery, we can provide a full turnkey solution at any location globally.

Our experienced team of specialist engineers has amassed many years of experience, defining the design and manufacturing of lifting, pulling and deploying solutions, ensuring delivery to client time scales, budgets and specifications.

We provide a flexible approach with an array of engineering skills supported by modern world class workshop facilities.

Our in-house hydraulic, electrical, electronic and engineering teams have developed and adapted technology to existing products delivering tailored and industry leading concepts.

We have demonstrated our ability to complete large projects and industry initiatives.

ACE Engineering provide:

- Front End Engineering and Design (FEED)
- Engineering Analysis / FEA
- Project Management
- Subsea Winch and Handling Solutions
- Platform Modifications
- Structural Engineering
- Mechanical Engineering
- IRM Consultancy
- PLC System Design
- Load Handling Equipment
- Hydraulic and Electronic Control Systems
- Equipment Service, Repair and Troubleshooting









ACE SERVICE

Our Service division offers maintenance contracts, upgrades and commissioning services for our clients requiring the overhaul, strip down, assembly and testing of equipment whether originally supplied by ACE Winches or a third-party.

We are an original equipment manufacturer, and global support is available 24/7 through our teams of qualified technicians. Master Service Agreements and packages are available to our clients owning and operating ACE Winches' equipment and/or thirdparty equipment.

We are committed to supporting our clients to maximise operational efficiency, utilisation and capability whilst reducing equipment stoppage and loss of operation.

All equipment is subject to comprehensive testing prior to delivery. Our services also incorporate a product sourcing facility to supply third-party products including wire ropes, hydraulic and electric components, and spare parts.

We can provide the following services:

- Offsite Commissioning
- Reverse
 Engineering
- Feasibility Studies
- FMECA and Engineering Surveys
- Product Upgrades
- Equipment Overhauls
- Equipment Repairs

- Survey Technical Support
- Global Asset
 Service
 Contracts
- Master Service Agreements
- PLC and Electrical Troubleshooting
- Hydraulic Servicing
- Asset Integrity

We have the expertise and capability to **supply, inspect, repair** and **overhaul** all **drilling rig** and **FPSO equipment**, including:

Hoisting and Lifting Equipment

- Turret Winches
- Mooring Winches
- Drawworks Winches
- Air Winches
- Docking Winches
- Hose Reelers
- Fairleads
- Tagging Towers
- Compensators
- Handling Equipment
- BOP Hoists

Control System

- Hydraulic Power Systems
- Retract Systems
- High Pressure Test
 Systems
- Fluid Filtration Systems
- Installation and Commissioning
- Variable Frequency Drives

Other

- Skidding Systems
- Jacking Systems
- Top Drives
- Mud Pumps
- Hydraulic Catheads
- Single Sheave Systems
- Custom manufactured equipment



Gearbox Manufacture



Heave Compensated System Rebuild

Complete rebuild of Mooring System on-board John Shaw Semi-Sub Drilling Rig

We were awarded the task of rebuilding eight Skagit anchor winches on-board the John Shaw semi-sub drilling rig.

Brake bank linings were removed, inspected, shot blasted and relined.

New bull gears and drive pinions were manufactured and installed, and the gypsy wheels required complete replacement.

All hydraulic cylinders and the main reduction gearboxes were overhauled and reinstalled.

- Brake band linings removed, inspected, shot blasted and relined
- Manufacture and installation of new bull
- Gears and drive pinions
- Total replacement of gypsy wheels
- Overhaul of main reduction gearboxes
- Overhaul of all hydraulic cylinders
- All parts and components cleaned, blasted and painted
- SAT tested to DNV position mooring standard, during sea trials in the North Sea







Anchor Winches rebuild on SEDCO 704 Semi-Submersible Drilling Rig

We was tasked with the complete rebuild of eight Baylor-Hepburn 500 Anchor Winches installed on the SEDCO 704.

Project work took place while the drilling rig was in dry dock at the Nigg Shipyard.

The Anchor Winches were removed and mobilised for local inspection, overhaul and rebuild at the company's Towie Barclay Works Facilities.

- Brake band linings removed and relined
- Removal of main shaft and bull gear for inspection and repair
- Total replacement of gypsy wheels
- Overhaul of reduction gearbox and brake
- Transmission gearbox
- Removal and replacement of clutches and air cylinders
- Disc brakes manufactured and reinstalled
- Complete overhaul of load cells including replacement diaphragms









Anchor Winches rebuild on Ensco 5004 Semi-Submersible Drilling Rig

We secured a contract for the overhaul and rebuild of eight Norwinch 2A-76-2 Anchor Winches situated on the Ensco 5004.

Work commenced on a drilling rig situated at the quayside of Malta Shipbuilding yard in Valleta.

While the majority of rebuild work took place onsite in Malta, the hydraulic motors and valves were sent to our facilities in Aberdeenshire for complete disassembly and overhaul with OEM parts.

Sheave assembly units within the drilling derrick were also transported to our specialised workshop for service re-matching and re-alignment.







Overhaul of a Turret Winch on Anasuria FPSO

We conducted a survey in 2017 of existing equipment previously supplied by the company in 2007 aboard the Anasuria FPSO, we were then contracted by Petrofac to overhaul and repair the equipment for further use.

The Anasuria FPSO is the first vessel to be custommade for floating production storage and offloading. It was designed and constructed for the combined development of the Teal, Teal South and Guillemot A fields within the Anasuria Cluster, located in the Central North Sea.

Following the survey in 2017, we recommended that the winch is refurbished prior to it's next use. To facilitate this, we will deploy skilled personnel to disassemble and transport the parts back to our Headquarters in Aberdeenshire so that the winch can face further in-depth inspection, overhauling and testing in a clean and safe environment.

The condition of each component will be individually examined and assessed, with specific focus on structural integrity to highlight any repairs or replacements that need to be carried out.

Through the expertise of the our engineers performing the surveys and inspections, the overhaul and refurbishment of the equipment can be conducted safely and to a high standard to increase the lifespan of the winch.



BOP Hoist Semi-Submersible Rebuild and Reconstruction

PROJECT OVERVIEW

Complete overhaul of four 100te BOP Hoist Units.

- Full strip down, shot blast and rebuild of hoists using OEM components
- All parts shot blasted and repainted to original specification
- MPI and NDT of all critical lift points
- FAT tested to OEM specifications



Abandonment and Recovery Winch Upgrade

PROJECT OVERVIEW

Refurbishment and upgrade of an 80te SWL Pullin Winch following comprehensive on-site winch survey.

- Winch drum modifications to modernise design under DNV 2.22 rules and GAP analysis produced.
- Upgrade of brake system to a true mechanical auto fail safe brake system
- Manufacture of guarding fitted around the drum and brake assemblies
- FAT tested to client and DNV standards





Overhaul of Lars Systems

Our client required an overhaul of an A-Frame, Winch and HPU within a short timeframe to meet project schedules.

The scope of work included a full inspection and reengineer of the vertical supports and lower pad-eye of the A-Frame. A full inspection was carried out on the winch, the brake units were replaced and then tested after installation. The excisting umbilical also had to be removed and replaced. A comprehensive review of the HPU took place, including a full functional check and electrical motors check. Any damaged parts such as the tank heater switch connector on the top of the tank was replaced.

Our teams successfully completed this work within the short lead time to allow our client to meet their project timeline.



Overhaul of a Turret Winch on Alba FSU

Following an inspection and survey of the components, we were awarded a contract to overhaul a turret winch aboard the Alba FSU.

We were required to procure, fabricate and refurbish the necessary replacement components and subsequently reassemble the winch ready for operation. We also upgraded the load monitoring system. Where possible, components were removed from the vessel for refurbishment at our facilities in Aberdeenshire, however due to limited crane capacity and access contraints within the FSU turret and surrounding deck area, the main structure of the winch could not be removed and work to this structure was conducted onboard the vessel. Once all the refurbished and replaced parts were installed, the winch was tested and commissioned to ensure its continued safe operation.





Coil Tubing Lift Frame Winch Safety Upgrade

We were contracted to conduct a safety upgrade on seven 12 tonne drum winches we had previously manufactured and supplied.

The work involved the fitting of a secondary brake



system to the motor side of the drum to give the winches a double break system.

The motor was removed from the winch and reassembled. All the components were FAT tested to DNV standards.



CORE VALUES

Our Core Values are firmly embedded within our company. We have a culture of continuous improvement, hard work, commitment to the growth and success of the company while increasing commercial awareness to improve performance.



Health and Safety

Committed to a safe, healthy and incident-free workplace

Excellence and Quality

Delivering world-class solutions on time

Investment

Investing in our people, products and facilities globally

Creativity

Delivering creative and innovative engineering solutions

Integrity Encouraging a culture of honesty, trust and respect

Responsibility Committed to taking responsibility for our actions and decisions

Lifting. Pulling. Deploying.

C ACE Winches

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