

SEAONICSTM

OFFSHORE HANDLING EQUIPMENT



SERVICE
24/7



OFFSHORE
SUPPLY



SUBSEA
CONSTRUCTION



MODULE HANDLING
WELL INTERVENTION



RESERVOIR
EXPLORATION

A GLOBAL, EXPERIENCED AND RELIABLE PARTNER



World leading clients

As global players in a competitive market, our clients face everyday challenges when performing complex operations into ever deeper waters, into harsher Arctic conditions and under extreme weather. SEAONICS' mission is to provide equipment that simplifies lifting and handling operations, while raising the standards of safety, eco-efficiency and profitability.

SEAONICS' continued interaction with clients, ship designers, shipyards, operating companies and oil companies, is the keystone for fulfilling all jobs in a time- and resource-optimized way. Thanks to our long experience, we can develop and deliver the most reliable solutions while always pushing for improvements in established industrial standards.

Our state-of-the-art systems are designed and produced to cope with the harshest forces of nature, and for use in long-term operations while satisfying the strictest regulatory requirements. In addition, our systems are also developed for easy integration with technically advanced ships and shipbuilding projects of high complexity.

SERVICE 24/7

SEAONICS Response Team

SEAONICS Response Team is available globally, at short notice, 24 hours a day, 7 days a week, 365 days a year. Our highest priorities are the safety of the crew and operational reliability of the equipment. Downtime is not acceptable, and the SEAONICS service programme includes systems maintenance and upgrades, and global availability at short notice from our highly qualified service personnel. We also offer training, as well as a remote maintenance and upgrades service, to save you valuable time.

Service phone: (+47) 930 74 400 Service mail: service@seaonics.com

Together, we are raising the standards.

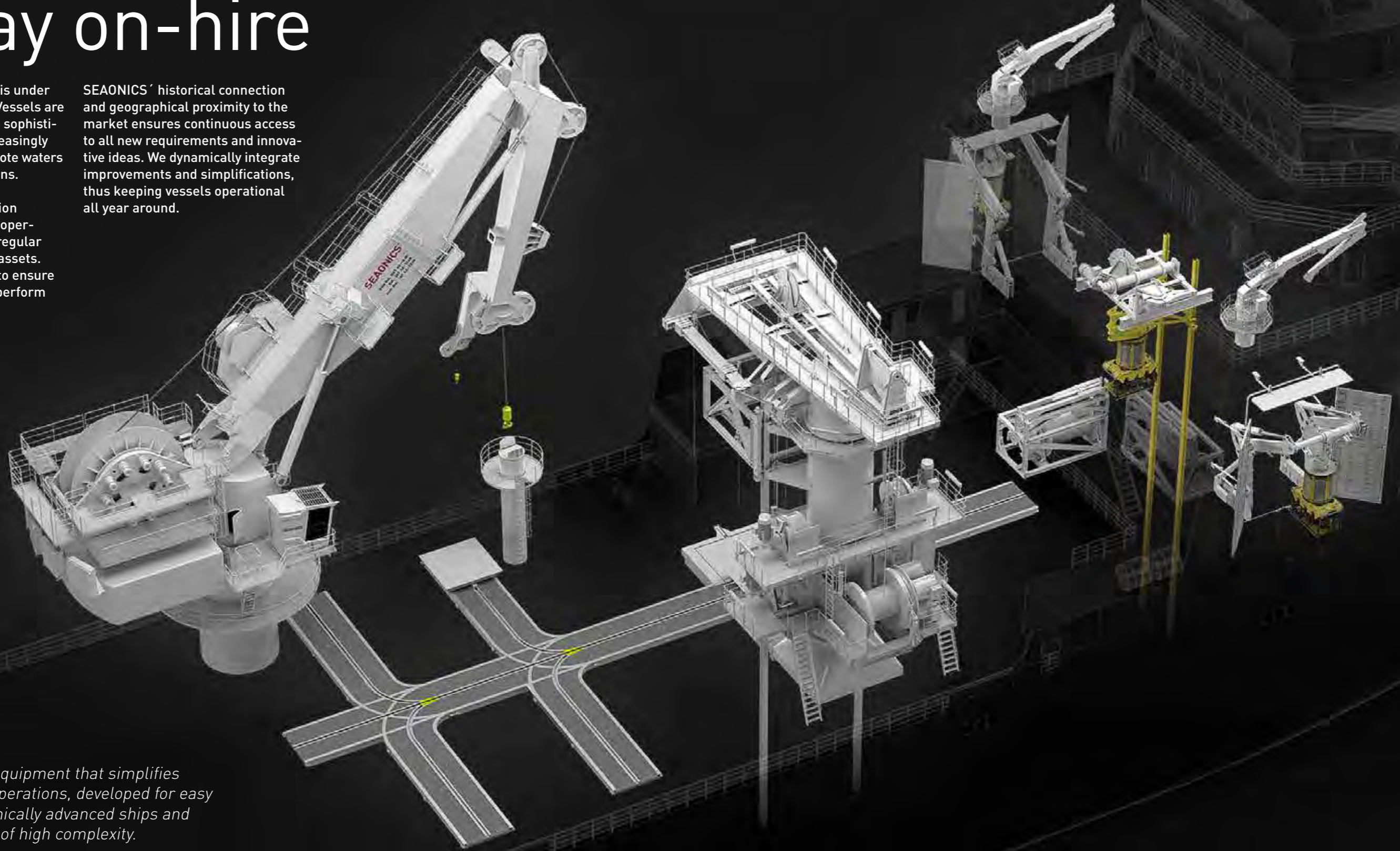
OFFSHORE HANDLING OPERATIONS

We know what it takes to stay on-hire

The world's offshore fleet is under continuous development. Vessels are becoming larger and more sophisticated, and involved in increasingly complex operations in remote waters under unforgiving conditions.

As international competition becomes fiercer, offshore operations worldwide require regular investment in substantial assets. It is necessary, therefore, to ensure that crew and equipment perform properly at all times.

SEAONICS' historical connection and geographical proximity to the market ensures continuous access to all new requirements and innovative ideas. We dynamically integrate improvements and simplifications, thus keeping vessels operational all year around.



SEAONICS provides equipment that simplifies lifting and handling operations, developed for easy integration with technically advanced ships and shipbuilding projects of high complexity.

CRANES

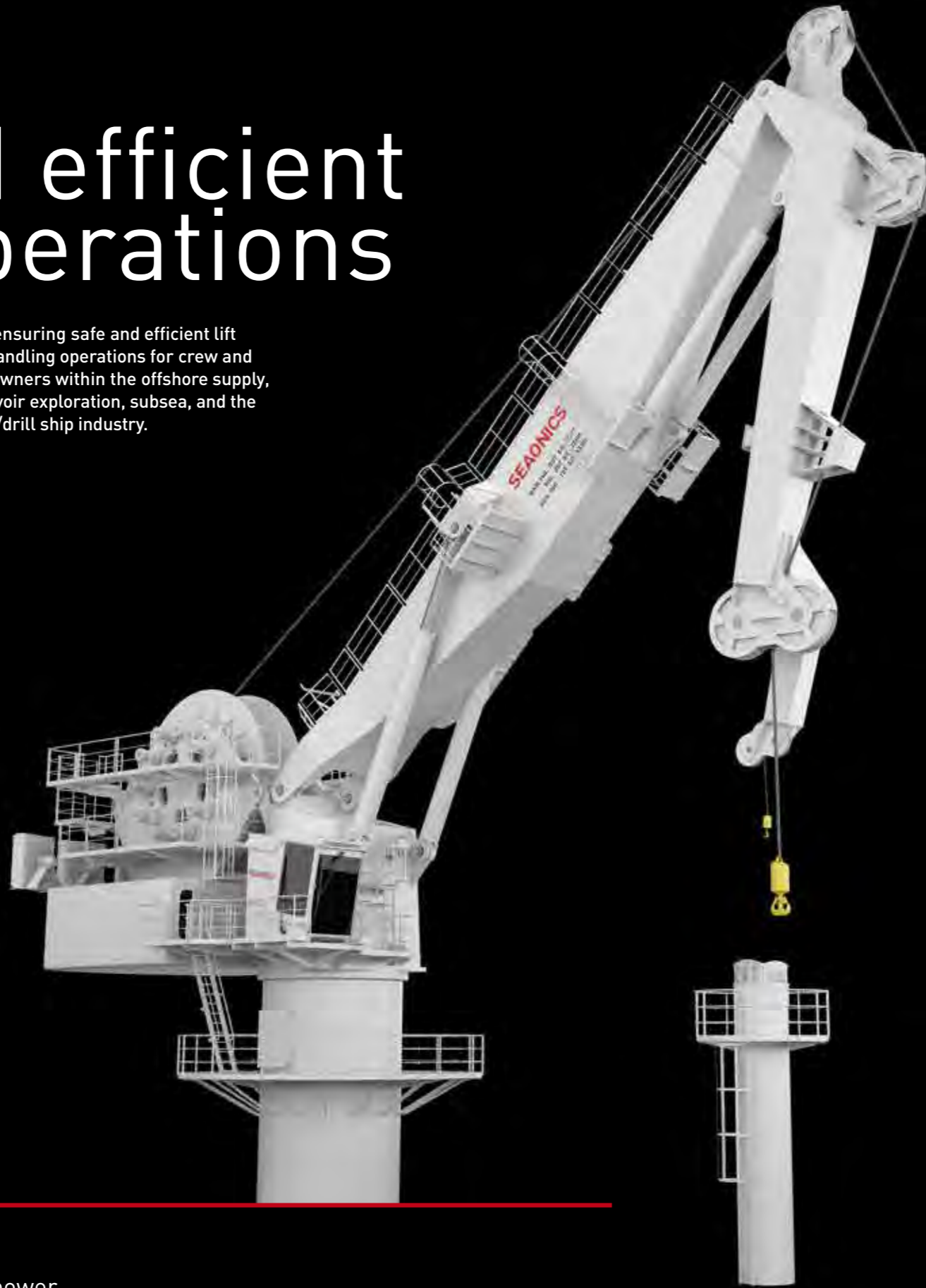
Safe and efficient lifting operations

SEAONICS delivers a large range of cranes, from small deck cranes to large active heave-compensated crane systems for heavy lifting operations, construction, trenching, and handling of equipment on deck and over side.

All our cranes and deck cranes have high-performance control systems with modern intuitive user interfaces. They are designed and manufactured for operating in harsh conditions,

thus ensuring safe and efficient lift and handling operations for crew and ship owners within the offshore supply, reservoir exploration, subsea, and the FPSO/drill ship industry.

SEAONICS' 150 tonnes active heave-compensated (AHC) offshore crane.



SEAONICS' Hybrid Drive Unit

Increased redundancy, speed and power

SEAONICS' hybrid drive unit is a state-of-the-art solution for safe load holding, as well as speed and acceleration on winches, cranes and other sophisticated handling equipment. The machinery is powered by a combination of hydraulic and electrical motors. SEAONICS hybrid solution reinforces redundancy, with two separate and independent drive systems controlled by SEAONICS' patented control system.

SEAONICS' hybrid drive unit boosts speed and power, offering increased flexibility of available speeds at different loads, with regeneration of electrical power to the vessel.

SEAONICS' Hybrid Driven Winch

A SEAONICS hybrid winch for a 50 tonne crane is prepared for easy installation on board the "Seabed Supporter", a multi-purpose offshore vessel designed by Sawicon and built by Fjellstrand for Swire Seabed.



SEAONICS' AHC Offshore Crane



SEAONICS' 50 tonne (80T two-fall) active heave-compensated (AHC) offshore crane with hybrid driven winch on board the Swire Seabed vessel "Seabed Supporter", during final preparations at the yard in Baku before the vessel is put into operation in the Caspian Sea.



This particular crane has wire/rope routed directly from winch to boom tip. This increases the work area compared to standard knuckle boom cranes, and reduces wear and tear of wires. The crane is ideal for Arctic operations and for use of fibre rope.



Shipboard/Deck Cranes

SEAONICS provides a wide selection of shipboard and deck cranes, including knuckle boom, fixed boom, telescopic and foldable cranes. The capacity ranges from 2-25 tonnes, up to SWL 25 tonnes, with options for remote control by cable or radio. The cranes are delivered as one unit to yard after factory acceptance testing (FAT) for easy installation.

A-Frames

SEAONICS' A-frames are developed and built for a wide range of custom applications in close collaboration with the client. These range from A-frames with standard sheave hang-up to large A-frames with docking units for trencher and advanced lift operations. The A-frames can be designed for efficient integration with other lift and handling equipment, such as winches and cable laying equipment.



LAUNCH AND RECOVERY SYSTEMS

Opening the operational window

SEAONICS' moon pool and over-side launch and recovery systems (LARS) are recognized for their solid design, good functionality and robustness. Designed for efficient operations and easy maintenance,

they are proven to be durable with high operational performance in challenging conditions, thus increasing the operational window for remotely operated vehicle (ROV) operations.

For safe and efficient deck and hangar operations, SEAONICS provides and integrates all necessary handling equipment seamlessly, including LARS, cranes, skidding systems, hatches and doors.

Safe working environment

The SEAONICS launch and recovery systems are designed for operation in a tough and corrosive offshore environment. Special attention has been given to intuitive and user-friendly control systems, and ease of access for service and maintenance.

The launch and recovery systems are equipped with active heave compensated (AHC) winches for compensating the vessel's heave, pitch and roll movements, and have all required functionalities for safe and efficient lifting operations.

The drives on the LARS umbilical winches are permanent magnet motors operated by frequency converters, which give high performance, low power consumption and reduced emissions through power regeneration.

SEAONICS' LARS A-Frame

The SEAONICS LARS A-frame is used for launch and recovery of the tether management system (TMS) and ROV on the side of the vessel. It consists of a two-pivot steel frame, hydraulic cylinders and a docking head.

The upper and lower parts of the SEAONICS hangar door can be closed during operation of the SEAONICS LARS A-frame.



SEAONICS' LARS Moon Pool

The LARS moon pool handling system consists of a cursor winch, cursor and a docking beam. The docking beam is hydrodynamic to reduce longitudinal drag while lowered.

The docking beam can be lowered to approximately 20 metres below the vessel's keel, in order to launch and

recover the TMS/ROV without subjecting the TMS umbilical to high forces through the splash zone.

The cursor is a fully mechanical component, which guides the docking beam safely through the moon pool bottom, and to the hang off position in the ROV hangar.



SEAONICS delivers complete handling packages for the entire ROV hangar, from launch and recovery systems, to hatches, doors, skidding systems and cranes.



Photo: Harald Valderhaug

MODULE HANDLING

Reinventing critical handling operations

Complex subsea operations require lift and handling equipment that give precise and reliable load control. Through close collaboration with operators, ship owners and ship

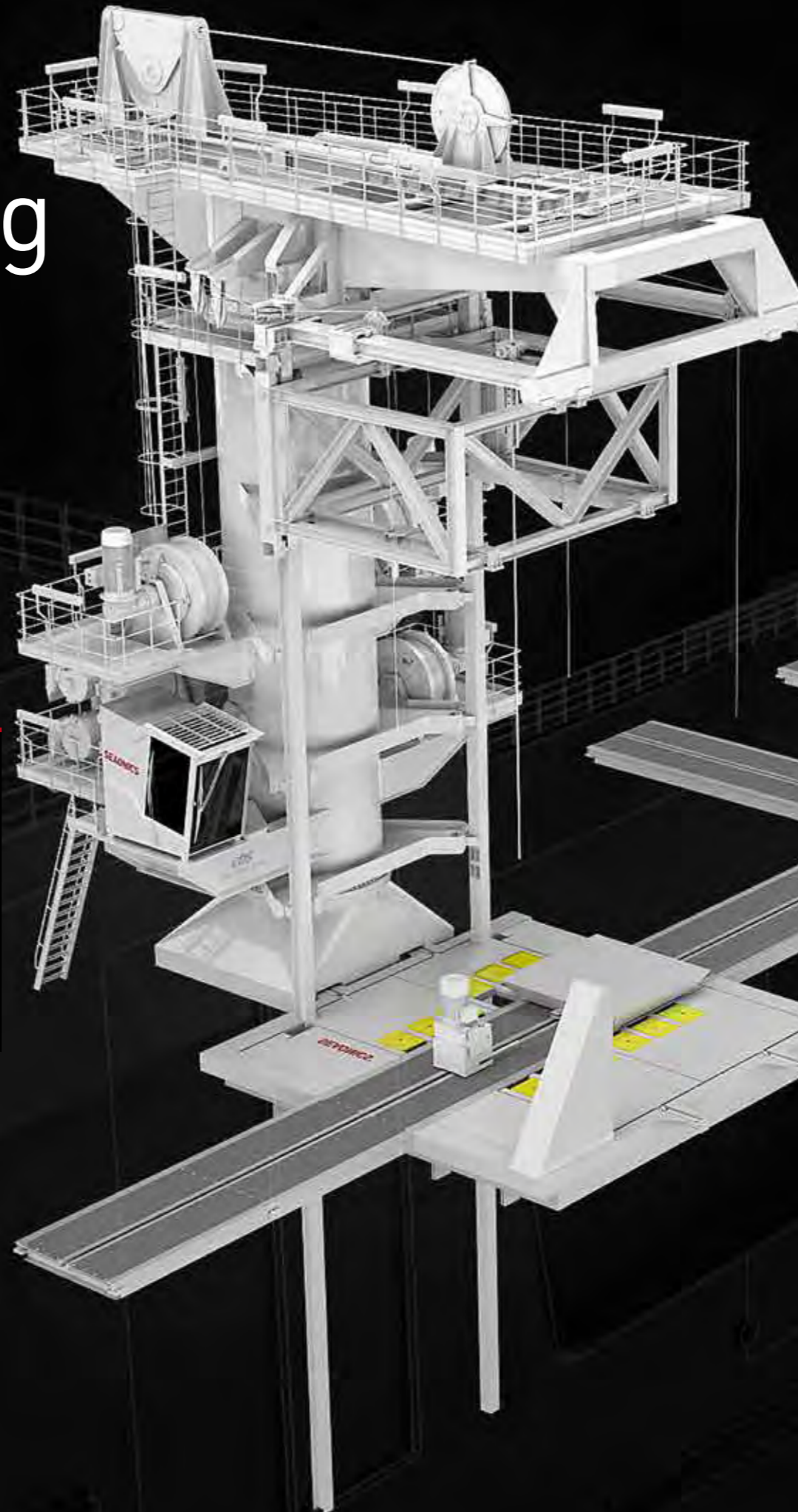
designers SEAONICS has developed and delivered lift and handling equipment that can be trusted in the most challenging conditions.

SEAONICS Towers

SEAONICS delivers module-handling towers for efficient inspection, maintenance and repair operations. The towers can be built as integrated parts of the vessel, lifted on board in one piece, or alternatively in sections or modules.

The applications have a robust, compact and flexible design. It can be delivered with hybrid or fully electric driven winches, and can be modified to fit existing vessels. It has a skiddable top sheave, which offers the possibility to use the crane through the top of the tower. It has flexible guide-wire arms, and the tower includes all frequency drives/hydraulic power units (HPU). Flexible module-based moon pool hatches with integrated deck skid system improve deck logistics.

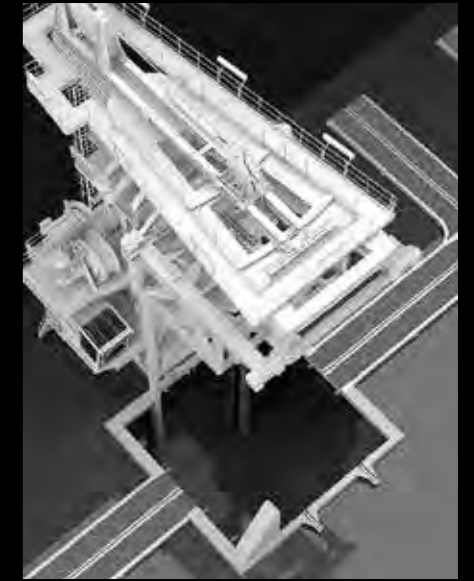
Solving complex subsea operations



SEAONICS' Pin Tower

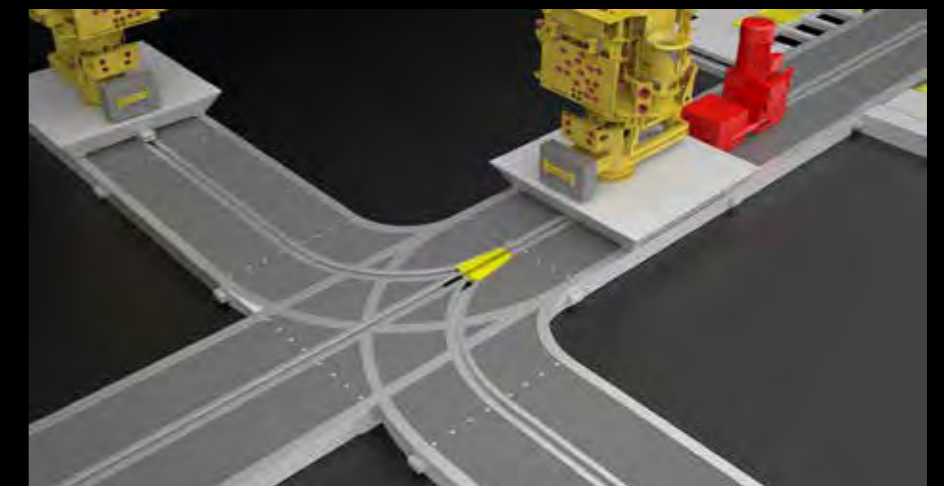
The SEAONICS pin tower is a simplified module-based solution for handling modules and well-intervention operations. The tower is easy to mobilize, move and demobilize. The construction has a small footprint based on a crane foundation, representing a low hanging fruit for vessels fitted for offshore construction work.

With the SEAONICS pin tower it is possible to launch and recover modules both through the moon pool and over side. The tower has an open top solution, which literally opens up for use of the offshore crane through the tower.



SEAONICS' Deck Skidding System

SEAONICS deck skidding system is a module-based track system. It is easy to install and easy to remove.





SERVICE 24/7

SEAONICS' 24h service network's highest priority is safety and operational reliability. SEAONICS' Response Team is available globally at short notice.

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OFFSHORE SUPPLY

SEAONICS delivers equipment for safe and efficient handling of cargo, including cargo securing winches, towing winches, deck cranes, and the new safe hose-handling system, SEAONICS SAFE.



SUBSEA CONSTRUCTION

SEAONICS supplies a wide range of advanced and reliable handling systems for subsea construction work, namely offshore cranes, launch and recovery systems (LARS), side ports, moon pool hatches and deck skid systems. All winches can be delivered with active heave compensation (AHC) powered by hydraulic, hybrid, or pure electric drives.



MODULE HANDLING - WELL INTERVENTION

In cooperation with Castor Drilling Solutions, SEAONICS offers custom-made and fully complete module handling systems and well intervention towers.



RESERVOIR EXPLORATION

Our product portfolio includes complete seismic packages and tailor-made solutions, such as node handling and traction winch systems. The equipment is designed for use world wide, all year round.



OCEAN TRAWLING

SEAONICS develops handling equipment for fishery operations under the harshest conditions. We are the sole provider of complete electrically-driven trawl winch packages and deck cranes in the market.



OCEANOGRAPHY/RESEARCH

SEAONICS develops and delivers complete deck machinery and overboard systems for all types of oceanographic research operations, providing renowned ship designers and national research institutes efficient solutions built on years of experience.

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