Module handling systems





Tailored to vessel's layout and operations

MacGregor supplies a broad range of customised and fully vesselintegrated module handling systems (MHS) that ensure precise and safe handling of subsea modules in some of the most severe offshore environments.

MacGregor MHS enable secure and accurate deployment, operation and retrieval of sensitive payloads, increasing vessels' operational envelope on all fronts. Our systems are highly varied in their design and function and utilise latest technology and innovative design solutions to provide maximum control, flexibility and cost-efficiency of operations.

MacGregor MHS are designed in accordance to industry's standards for subsea lifting equipment, such as DNV and ABS, and may be supplied in accordance with most certification requirements.





Integrated tower in vessel's hangar or stand-alone aft deck tower structure

Customised to comply with vessel's layout and its specific operational requirements, MacGregor MHS are supplied as hangar-integrated tower or as stand-alone aft deck systems of square lattice or gallows box structure.

While free-standing towers offer more flexibility, the hangar-integrated alternative offers, safer and more comfortable working environment.

Our references

Stand-alone aft deck tower

- 1 x 50t MHS to Hakurei (Marine resource research vessel), JOGMEC
- 1 x 40t MHS to Rem Ocean (Construction support vessel), DeepOcean

Integrated tower

1 x 60t MHS to Edda Fauna (Inspection, maintenance, repair vessel), Østensjø Rederi

Main components

- Integrated tower in vessel's hangar or stand-alone aft deck tower structure
- Main lift-line winch system
- Guidewire system
- Cursor system
- Moonpool doors and vessel interface system
- Deck-skid system for modules
- Auxiliary equipment

Main liftline winches



MacGregor offers clever winch arrangements, where number of winches, their size and placement can be very flexible when combined with spooling system and feed-out units.

- Electric or hydraulic drive
- Safe Working Load: 10 300t
- Water depth: typically up to 3000m
- Active Heave Compensation
- Auto tension / Constant tension
- Adjustable wire exit point

Guidewire system

MacGregor guidewire systems ensure extremely accurate load handling and precise mating of subsea units on to the seabed during critical operations in rough seas and harsh weather.

- Electric or hydraulic drive
- Safe Working Load: 5 10t
- Water depth: typically up to 3000m
- Active Heave Compensation
- Auto tension / Constant tension
- POD wire functionality
- Adjustable wire exit point by use of guidewire cranes



Cursor system

MacGregor cursor system is used to securely grasp and constrain the module during deployment and recovery through the moonpool. Controlled lowering and lifting of the cursor system together with the load prevents the module from swinging within the confines of the tower and moonpool, minimising the risk of damage to the load.



- Dual cursor system, hook and tool cursor (separate winches)
- Electric or hydraulic drive
- Safe Working Load: 5 10t
- Manual or hydraulic adjustable prong configuration
- Tool entry sensors on prongs
- Cursor parking system

Moonpool systems



MacGregor moonpool systems may be designed for a wide variety of systems and vessel types. Moonpools have been developed with simple hinged hatches and with complex three-part doors with wire hatches and integrated deck-skid rails.

- Standard 7,2m x 7,2m opening
- Hydraulically operated
- Fail-safe lock system
- 3 door system, 1 main and 2 side hatches
- Integrated deck-skid system over moonpool hatches
- Interfaced to vessel's structure or to base frame
- Optional bottom moonpool hatches
- Local or integrated contol systems

Deck-skid system

MacGregor deck-skid systems provide operators with the ability to safely move particularly large loads around deck, into and out of hangars or to place them on moonpools, while the vessel is in route, despite rough weather. These systems offer simple, safe and time-efficient rigging.



- Integrated on deck or mobilised skid rail (beam welded/bolted to deck)
- Hydraulic operated tractors
- Tractor speed: up to 3m/min
- Tractor/pallet are sea-fastened when skidding at all times
- Rotating pallet
- Multi-hose remote or radio remote control
- On-tractor hose reel

Auxiliary equipment

MacGregor offers a variety of auxiliary systems and optional equipment functions to improve overall safety, reliability and efficiency of module handling operations even under harsh weather conditions. All components of MacGregor module handling package and its auxiliary equipment are specifically designed to suit vessels's design and operational requirements.





- Personnel lift
- Service crane
- Foldable telescopic crane
- Tugger winch
- Umbilical guide and sheave system
- Umbilical winch
- Guidepost manipulator
- Guidepost storage
- LARS for ROVs

Control systems

MacGregor offers versatile control systems focusing on safety and easy operation. Advanced lifting modes like active heave compensation, auto tension, constant tension, or synchronized modes are available. Hydraulic valves, motors or frequency converters can easily be controlled and monitored.



The control system can handle information from a wide range of sensors, and exchange information between different types of MacGregor equipment, the bridge, engine room or ROV control room.

- Intuitive presentation of alarms and warnings
- Wireless operation
- Advanced logging
- Remote diagnostics
- Wire lifecycle monitoring
- Power request systems
- Cooling control systems
- Video and information distribution systems
- Load calculation tool
- Easy or automatic recalibration after component replacement



MACGREGOR

Wherever needed, you can rely on our support.



MacGregor offers world leading engineering solutions and services for handling marine cargoes and offshore loads. The scope of our integrated packages is growing and now also includes Hatlapa, Porsgrunn, Pusnes and Triplex products.

MacGregor serves the offshore, maritime transportation and naval logistics markets in ports and terminals as well as on board ships and rigs. MacGregor solutions combine load and cargo access, stowage, care and handling functions to optimise lifetime profitability, productivity and environmental sustainability.

MacGregor is part of Cargotec. Cargotec's class B shares are quoted on NASDAQ OMX Helsinki Ltd.

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