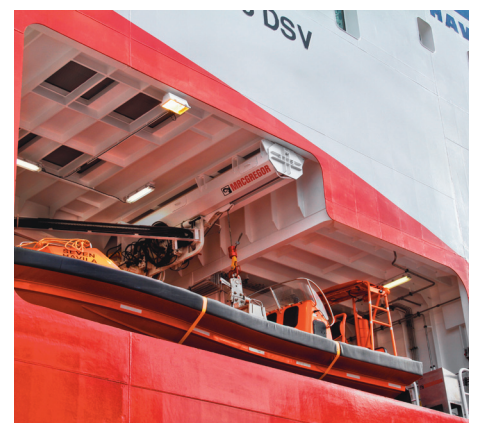
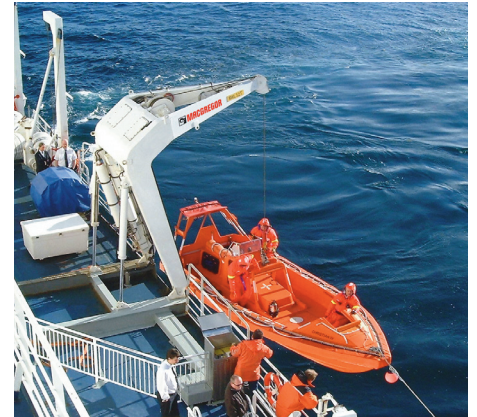




Offshore, Advanced Load Handling

Rescue and work-boat davits



TECHNICAL INFORMATION

A-Davit
G-Davit
TE-Davit



Operational profitability

through pioneering technology, reliability and lifelong sustainable performance.

Cargotec is the world-leading provider of comprehensive market-driven engineering solutions for installation on offshore vessels and rigs under the respected MacGregor brand. It is our strategic aim to benefit our customers by driving innovation and taking the lead in further developing the industries we are in.

Optimising long-term safety and efficiency of your offshore operations is best attained when your specific operational requirements are the primary focus. We are committed to leveraging our expertise and in-depth understanding of your business processes to design comprehensive solutions for your type of vessel and its specific operational requirements.

We understand the offshore industry's ever growing demand for operational flexibility and increased equipment reliability. Cargotec offers MacGregor solutions designed to expand the operational envelop on all fronts. That means longer hours, more days, in more demanding conditions, while maintaining safety, reliability and efficiency with top precision.

Your success is our mission



Offshore, Advanced Load Handling

Rescue and work-boat davits

Cargotec's range of MacGregor rescue and work-boat davits for efficient handling of small or large daughter craft, MOB and other rescue boats from ships and offshore platforms are reliable and accurate systems, designed for long-time operation in severe conditions of up to sea-state 6. SOLAS approved MacGregor davits are delivered as complete, self-contained units with incorporated emergency backup power systems for guaranteed operation even during dead-ship conditions. These robust systems are available in pivoting and telescoping designs for launch and recovery, and stowing of rescue crafts in tough and corrosive offshore environments.

Meeting all standards

All MacGregor davits are tested and certified in accordance with SOLAS, IMO and EU regulations. G- and T -type davits are also available with UKOOAIMSA certification for standby vessels and CE certification in accordance with the Marine Equipment Directive.

Installation made easy

The complete solution of MacGregor T -type davit significantly simplifies installation onto a vessel, minimizes the risk of system failure, reducing time and cost. It is only required to weld or bolt (optional) the unit to the substructure, interconnect units with the multi-hose/ pipes, fill hydraulic oil and connect electric power supply to the motor located on the davit's jib.

Key benefits

- "Dead-ship" launching system
- Safe and gentle handling of the rescue craft
- Safe and easy installation, maintenance and repair
- Minor structural impact to the vessel
- Efficient space utilization





A-Type: Offshore rescue Boat Davit



MacGregor A-type davit is a cost-effective alternative for handling of small and medium-sized fast rescue boats, MOB's, workboats, daughter craft and rescue rafts.

A-type davits are designed to operate with a safe working load between 1.5 to 8.2 tons. The davit is delivered as a self-contained, hydraulically-operated unit designed for long-time operation and efficient handling and stowing of a boat in a tough and corrosive marine/offshore environment on deck of any vessel.

Standard features for A-Davits

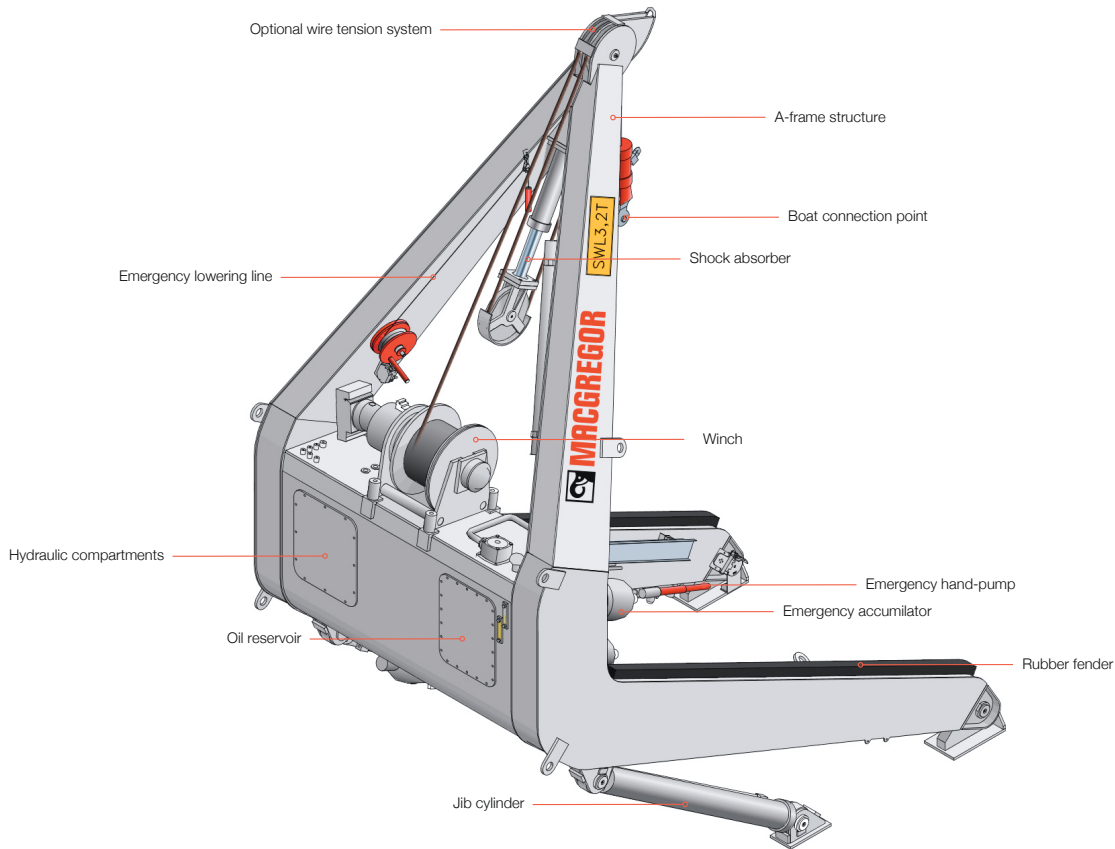
- Dead-ship launching system operated from boat / Dead-ship launch of fully loaded boat
- Built in electro-hydraulic power unit / Built in stored power system
- Built-in high speed winch unit
- Separate stainless steel operation console including multi-hose (optional)
- Stainless steel hydraulic cylinders
- Galvanized wire rope
- Deck installation brackets
- DENSO tape protected hose couplings
- Space heater in electric motor

Optional features for A-Davits

- Constant tension system (CTS) - (wave-riding recovery mode)
- Hydro-pneumatic shock damper
- Remote control systems
- Diesel power back-up
- High-speed auto-tension winch function
- Power sheave
- Luffing, telescoping, slewing towing boom with or without jigger winch
- Electric motor starter cabinet

- Deck foundation/console for increased installation height
- Increased hook travel height
- Multi-hose up to 10m in length
- Hydraulically-operated boat guide system
- Shock qualified davits for Navy applications





Main technical specifications for A-Davits

	A 15 MOB	A 34 MOB	A 38 MOB	A 45 MOB	A 55 MOB / TUG	A 82 MOB
Lifting capacity (SWL)	1.5 tons	3.4 tons	3.8 tons	4.5 tons	4.5 tons	8.2 tons
Number of wire falls	1	1	1	1	1	1
Hoisting speed	0-50 m/min	0-50 m/min	0-50 m/min	0-50 m/min	0-50 m/min	0-50 m/min
List / trim, max	20°list/10°trim	20°list/10°trim	20°list/10°trim	20°list/10°trim	20°list/10°trim	20°list/10°trim
Outreach	-1.50 m	-3.40 m	-3.40 m	-2.30 m	-2.16 m	-2.68 m
Wire diameter	NA	NA	NA	NA	NA	NA
Power consumption	-24 kW	-59 kW	-63 kW	-68 kW	-94 kW	-135 kW
Voltage available from	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz	3x440V-690V / 60 Hz 3x380V-660V / 50 Hz
DOL start current	Upon request	Upon request	Upon request	Upon request	Upon request	Upon request
Star / Delta start current	Upon request	Upon request	Upon request	Upon request	Upon request	Upon request
Max installation	-2.51 m	-3.60 m	-3.60 m	-3.45 m	-3.75 m	-4.10 m
Max height (stored position)	-3.97 m	-5.45 m	-5.45 m	-4.67 m	-5.45 m	-5.46 m
Total weight	-1.5 tons	-4.0 tons	-4.0 tons	-4.0 tons	-3.85 tons	-5.5 tons

Main technical specifications for winch

	A 15 MOB	A 34 MOB	A 38 MOB	A 45 MOB	A 55 MOB / TUG	A 82 MOB
Winch type	D03RIS, 2 tons	HMW50- 007	HMW50- 007	HMW50- 007	HMW50- 007	HMW85- 001
Drum capacity	-20 m	-38 m	-38 m	-30 m	-38 m	-30 m
Operating pressure	230 Bar	250 Bar	250 Bar	240 Bar	250 Bar	240 Bar
Wire Diameter	Ø 13 mm	Ø 19 mm	Ø 19 mm	Ø 19 mm	Ø 19 mm	Ø 26 mm
Wire end termination	Wedge socket in outer end	Wedge socket in outer end	Wedge socket in outer end	Wedge socket in outer end	Wedge socket in outer end	Wedge socket in outer end
Hook connection	Supplied with boat	Supplied with boat	Supplied with boat	Supplied with boat	Supplied with boat	Supplied with boat





G-type: Fast Rescue Craft Davit



MacGregor G-type davit is the most suitable alternative for handling heavier MOB, FRC, workboat, daughter craft and rescue rafts.

Designed to operate with a safe working load of up to 11 tons, G-type davits are based on a hydraulically operated frame with a tipping boat cradle, including a winch with constant tension capacity, towing boom, shock absorbers and pendulum damped docking head, integrated power packs for normal and emergency operation.

Standard features for G-Davits

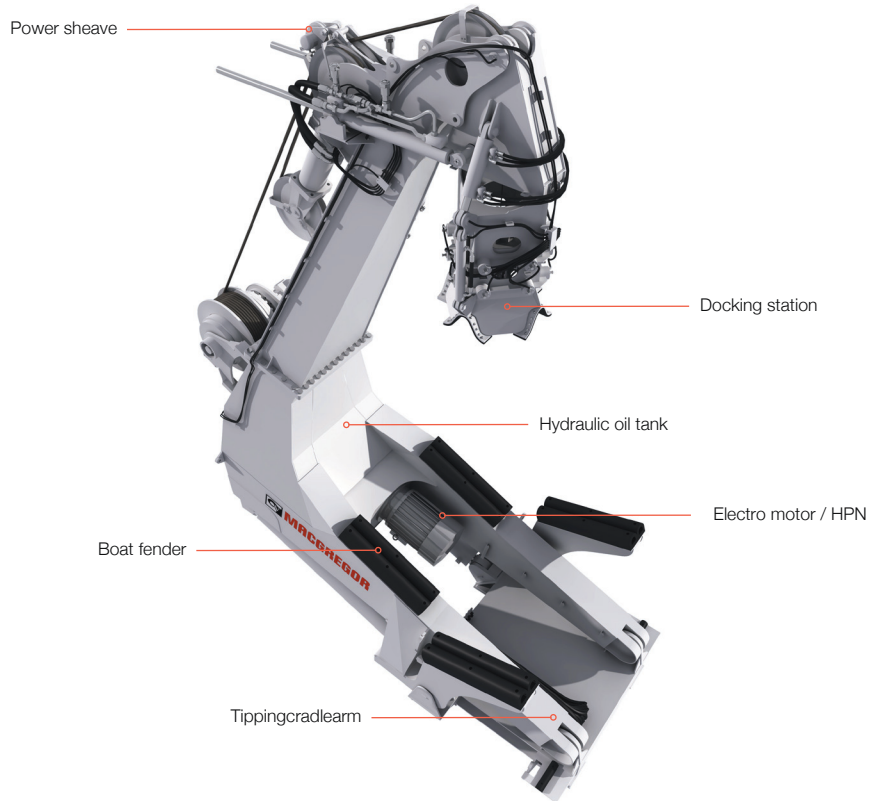
- Dead-ship launching system operated from boat / Dead-ship launch of fully loaded boat (for G-25 and G-40 models)
- Built in electro-hydraulic power unit / Built in stored power system

- Hydro-pneumatic shock damper
- Power sheave
- Built-in high-speed auto-tension winch unit
- CTS (constant tension system) - wave-riding recovery mode
- Pendulum-damped docking head
- Separate stainless steel operation console including multi-hose (optional)
- Stainless steel hydraulic cylinders
- Galvanized wire rope
- Deck installation foundation
- DENSO tape protected hose couplings
- Space heater in electric motor
- Luffing, towing or slewing towing boom with or without jigger winch

Optional features for G-Davits

- ARC-RCS (active heave compensated hook connection system)
- Remote control systems
- Diesel power back-up
- Electric motor starter cabinet
- Deck foundation/console for increased installation height
- Increased hook travel height
- Multi-hose up to 10m in length
- Shock qualified davits for Navy applications





Main technical specifications for G-Davits

	G25	G40	G80	G100	G110
Lifting capacity (SWL)	2.5 tons	4.0 tons	8.0 tons	4.5 tons	10.0 tons
Hoisting speed	0-60 m/min	0-60 m/min	0-60 m/min	0-60 m/min	0-60 m/min
List / trim, max	20°list/10°trim	20°list/10°trim	20°list/10°trim	20°list/10°trim	20°list/10°trim
Outreach	-2.45 m	-3.0 m	-4.0 m	-4.0 m	-4.0 m
Power consumption	-50 kW	-67 kW	-145 kW	-180 kW	-180 kW
Voltage	380V-690V / 50 or 60 Hz	380V-690V / 50 or 60 Hz	380V-690V / 50 or 60 Hz	380V-690V / 50 or 60 Hz	380V-690V / 50 or 60 Hz
DOL start current	Upon request	Upon request	Upon request	Upon request	Upon request
Star / Delta start current	Upon request	Upon request	Upon request	Upon request	Upon request
Min installation depth	-3.6 m	-4.4 m	-5.4 m	-5.4 m	-5.4 m
Min height (stored position)	-5 m	-5.4 m	-7.4 m	-7.4 m	-7.4 m
Total weight	-3.5 tons	-6 tons	-12 tons	-12 tons	-12 tons

Main technical specifications for winch

	G25	G40	G80	G100	G110
Winch type	HMW 32-003	HMW 50-007	HMW 85-002	HMW 100-007	HMW 100-007
Drum capacity	-28 m	-38 m	-37 m	-39 m	-39 m
Operating pressure	300 Bar	250 Bar	300 Bar	300 Bar	250 Bar
Wire Diameter	Ø 16 mm	Ø 19 mm	Ø 24 mm	Ø 28 mm	Ø 28 mm
Wire end termination	Open spelter socket	Open spelter socket	Open spelter socket	Open spelter socket	Open spelter socket
Hook connection	Supplied with boat	Supplied with boat	Supplied with boat	Supplied with boat	Supplied with boat





TE-type: Telescoping Rescue Craft Davit



MacGregor T-type davit is the best alternative for handling heavier MOB, FRC, workboat, daughter craft and rescue rafts.

The space-saving design of the T-type davit leaves the vessel deck and bulkhead clear, supporting the davit only by the overhead ship's structure. The compact design of the davit allows installation in locations with limited height and/or depth. T-type davit is also available in FRC versions with dampened docking head and towing boom. Designed to operate with a safe working load up to 10 tons T-type davits are based on a hydraulically operated T-shaped structure, with a built-in V-shaped boat cradle, heave compensated winch, pendulum-dampened docking head, shock dampeners, and a built-in normal and emergency power unit.

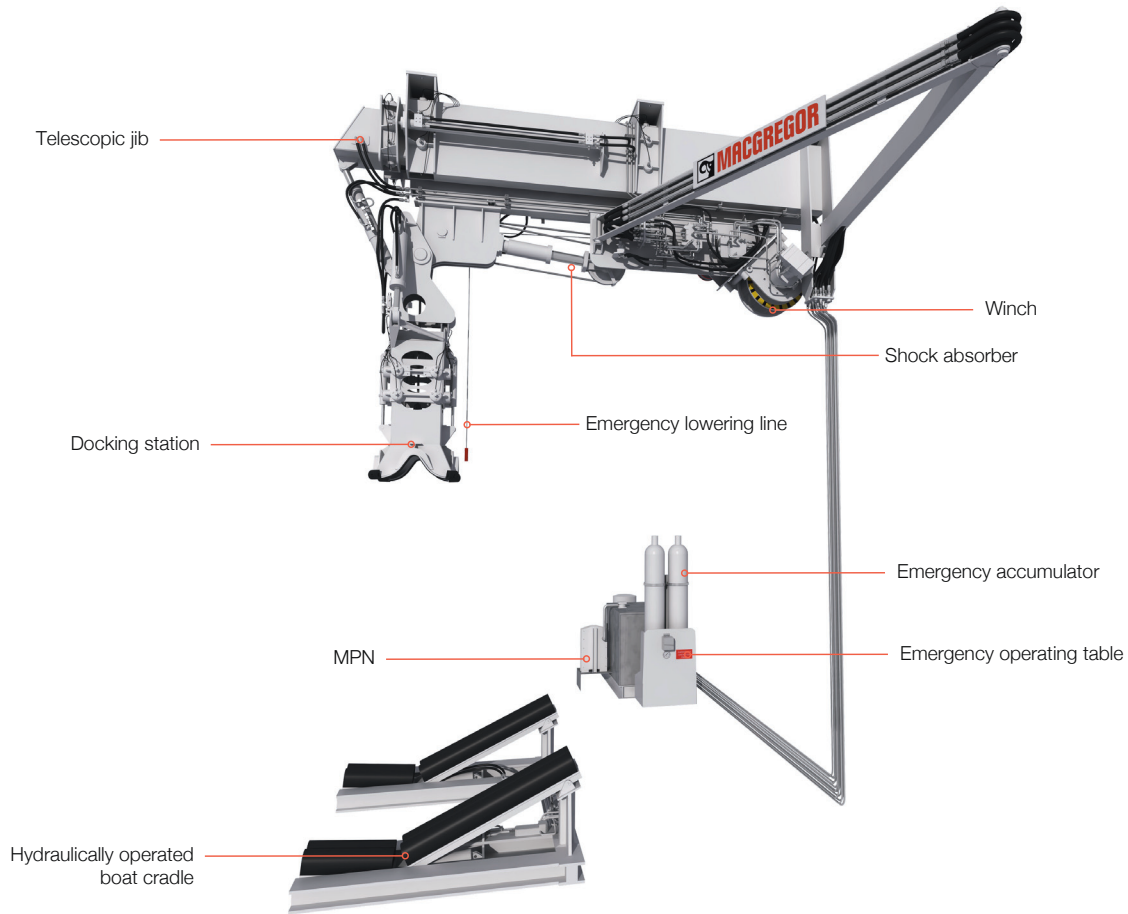
Standard features for TE-Davit

- Dead-ship launching system operated from boat / Dead-ship launch of fully loaded boat
- Built-in electro-hydraulic power unit / Built-in stored power system
- Built-in high speed winch unit
- Separate stainless steel operation console including multi-hose (optional)
- Stainless steel hydraulic cylinders
- Galvanized wire rope
- Deck installation foundation
- DENSO tape protected hose couplings
- Space heater in electric motor

Optional features for TE-Davit

- Hydro-pneumatic shock damper
- Remote control systems
- Diesel power back-up
- Power sheave
- CTS (constant tension system) – wave-riding recovery mode
- Electric motor starter cabinet
- Deck foundation/console for increased installation height
- Increased hook travel height
- High-speed auto-tension winch function
- Multi-hose up to 10 meters in length
- Luffing, telescoping or slewing towing boom with or without jigger winch
- Shock-qualified davits for Navy applications





Main technical specifications for TE-Davits

	TE32
Lifting capacity (SWL)	3,0 tons
Number of wire falls	1
Hoisting speed	0-50 m/min
List/trim, max	20°list/10°trim
Outreach	-1,65 m
Wire diameter	NA
Power consumption	-51 kW
Voltage available from	3x440V-690V/ 60Hz
DOL start current	Upon request
Star/Delta start current	Upon request
Max installation depth	-3,8 m
Max height (stored position)	-3,8 m
Total weight	-3,75 tons -1,1 tons (HPU)

Main technical specifications for winch and sheaves

	TE32
Winch type	HMW32-001
Drum capacity	-28 m
Operating pressure	250 Bar
Wire diameter	Ø 16 mm
Wire end termination	Wedge socket in outer end
Hook Connection	Supplied with boat



Retain flexibility with integration where and how you want it

Cargotec has years of experience producing advanced systems that benefit from integration on different levels. Such integration can have great benefits but doesn't need to come at the cost of flexibility.

Any of our systems can be designed for full integration into vessel new-build projects or modularized for easy placement in existing vessels. Mechanical design can be adjusted to suit specific interface prerequisites. Power requirement can be met by dedicated HPUs or by integration with a vessel ring-line system. Power management systems can be integrated into the vessel's power generation system for improved safety and efficiency. Control systems themselves may be integrated into the ship's own control and/or monitoring stations as well as in dedicated and remote operating panels. Controls for related equipment can also be integrated into a common interface. And integration doesn't stop there.

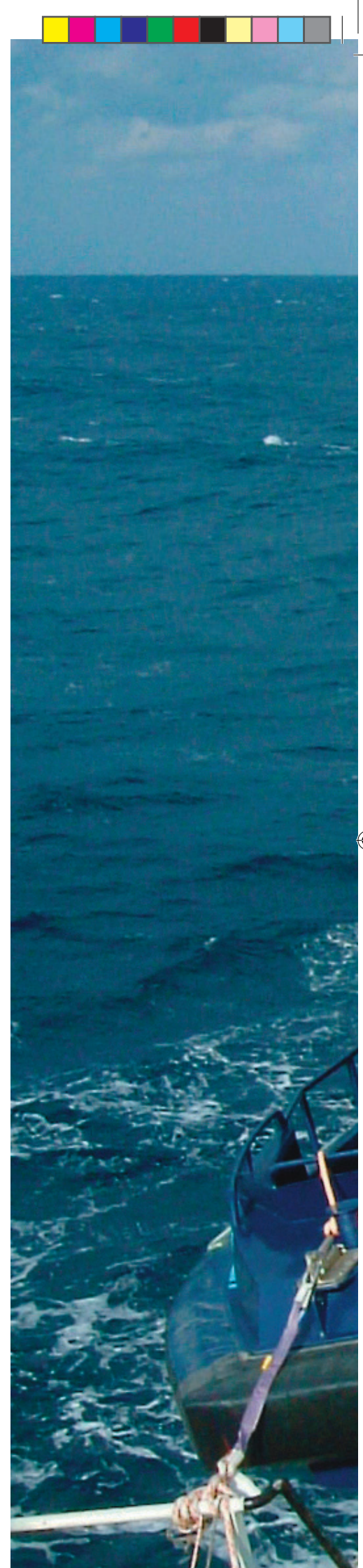
You, the owner can specify exactly how much and what type of integration best suits your needs. You benefit from greater efficiency and still retain the flexibility you need.

Life-cycle efficiency improves your business

Our goal is to increase value by providing top-quality service and sustainability throughout the complete life-cycle of our products. Cargotec offers you a full service portfolio, including its MacGregor Onboard Care (MOC) concept, designed to meet your strategic and tactical needs. An MOC agreement offers the opportunity to compose a unique mix of services to meet your specific requirements.

Availability support, onboard maintenance, spare parts management and customer training are the four elements of an MOC agreement, which offers you sustainable ship operations and revenue earning capabilities by ensuring the operative availability through planned maintenance solutions and our global service network.

With a MOC agreement, you can concentrate on your core business.





Anytime, any weather
Keep your options open





Global presence and local service bring our solutions closer to our customers.



Lloyd's Register Quality Assurance certifies that the Quality Management System for Cargotec Marine is ISO 9001:2008 compliant.

Cargotec improves the efficiency of cargo flows on land and at sea - wherever cargo is on the move. Cargotec's daughter brands, Hiab, Kalmar and MacGregor are recognised leaders in cargo and load handling solutions around the world.

MacGregor is the global market leading brand in marine cargo handling and offshore load-handling solutions. Customer driven MacGregor engineering and service solutions for the maritime transportation, offshore load-handling and naval logistics markets are used onboard merchant and naval ships, on offshore support vessels, and in ports and terminals.

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