

Ortlinghaus

WINCH
ING TECHNOLOGY
ECHNOLOGY



Next level winch performance

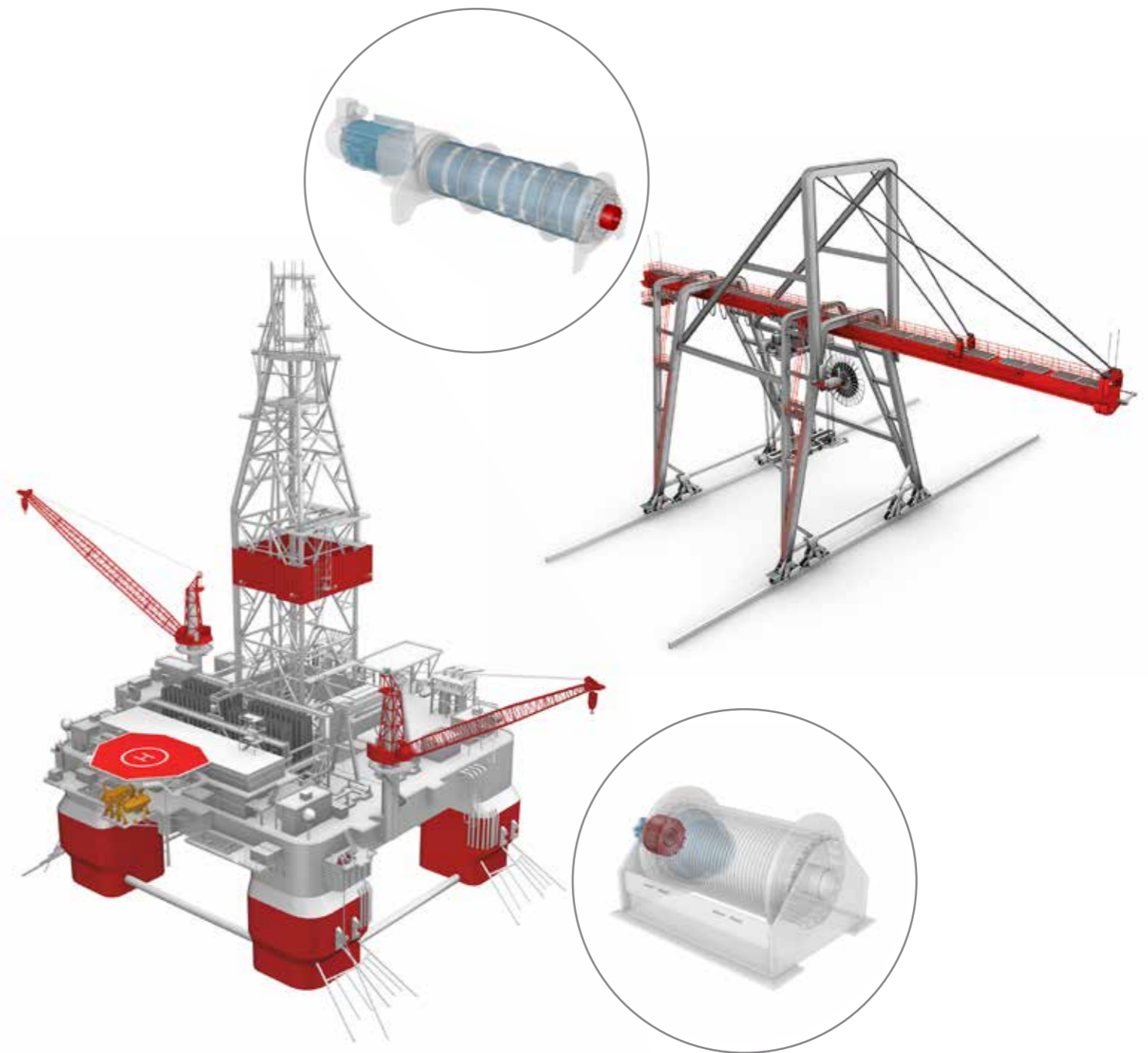
Winch Technology from Ortlinghaus

We have been operating in the field of winch technology for more than 90 years. Our experience means we provide a full range of products from plates, clutches, and brakes for deck machinery offshore applications and port technology.

We are the only company with extensive experience of manufacturing clutches and brakes which has also proved highly successful in producing its own plate linings.

Ortlinghaus has an outstanding reputation for quality all around the world – and we are dedicated to upholding this. Together with our clients we develop individual solutions characterized by innovation and superior engineering.

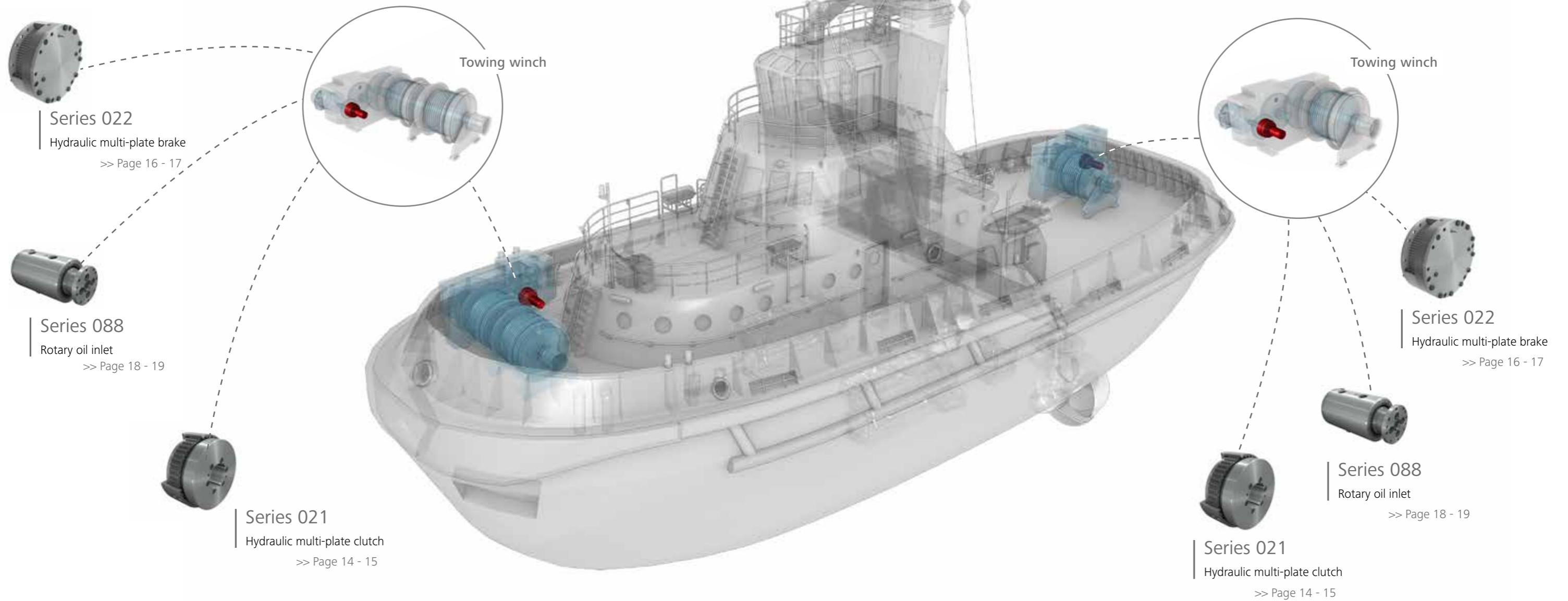
Our global network, consisting of more than 25 branch offices, sales partners, and service points, ensures that we respond quickly and stay in touch with our clients' needs.



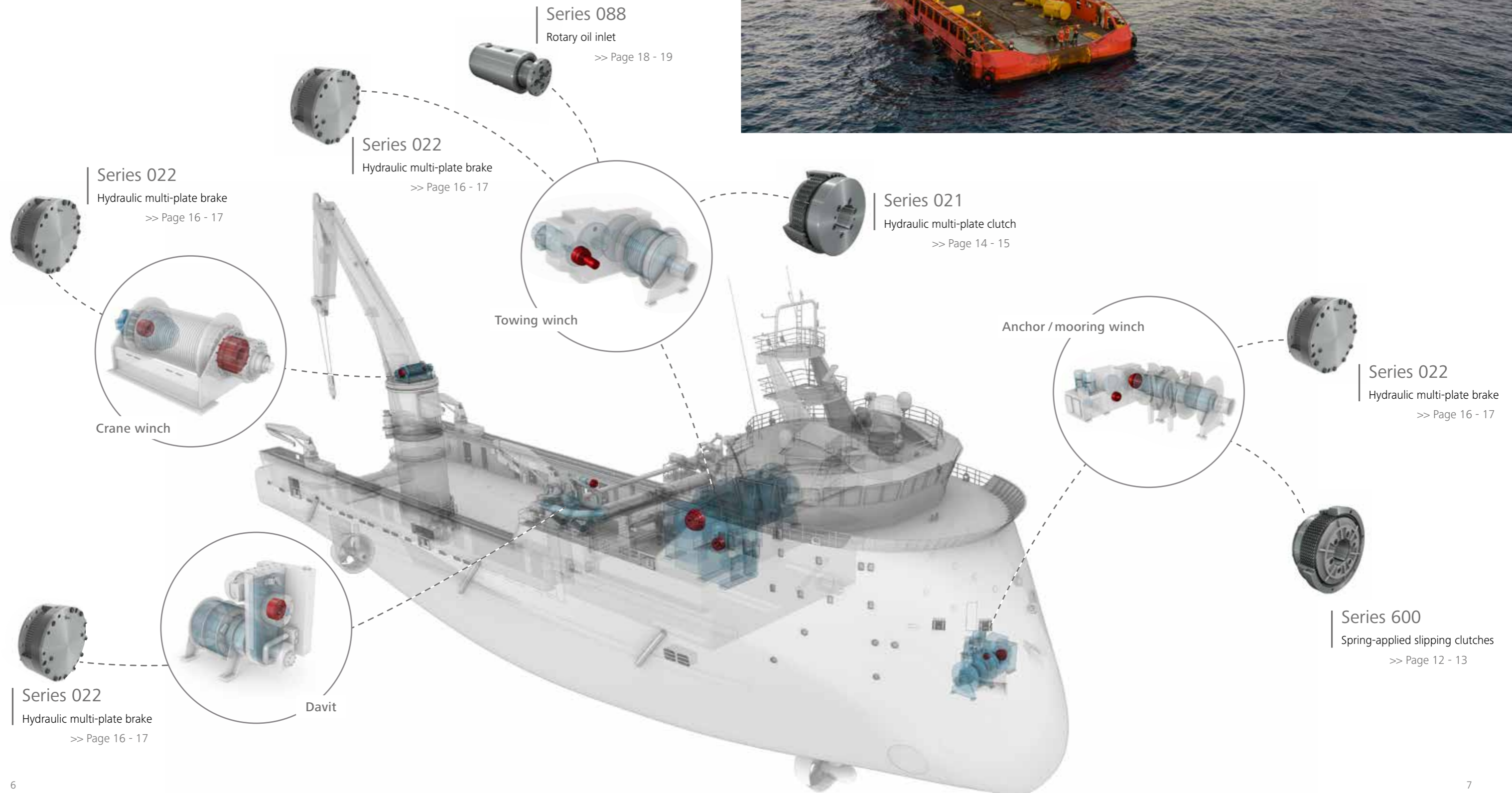


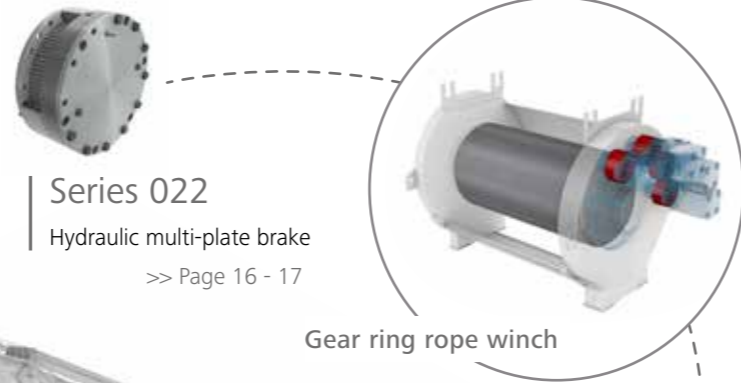
Deck machinery

Our hydraulically released brakes and hydraulically actuated clutches are installed in anchor and mooring winches as well as in towing winches for tugboats and huge AHTS vessels. Hand winches in davits can be equipped with hydraulically released brakes or plates used in customized designs. For all these applications we either offer a safe holding function, clutch function, slipping function, dynamic braking function or overload protection of gear components for example.



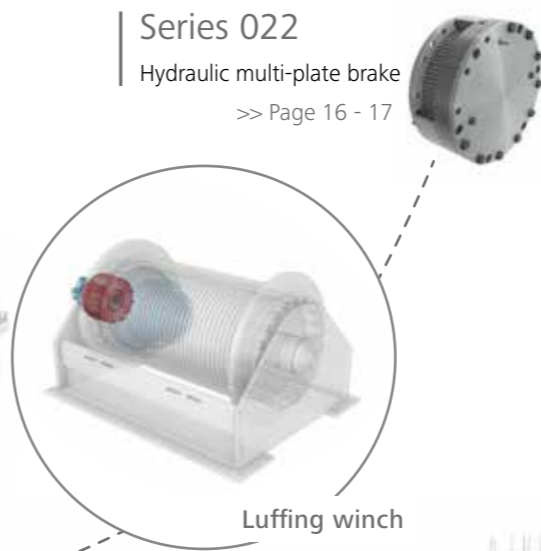
Deck machinery





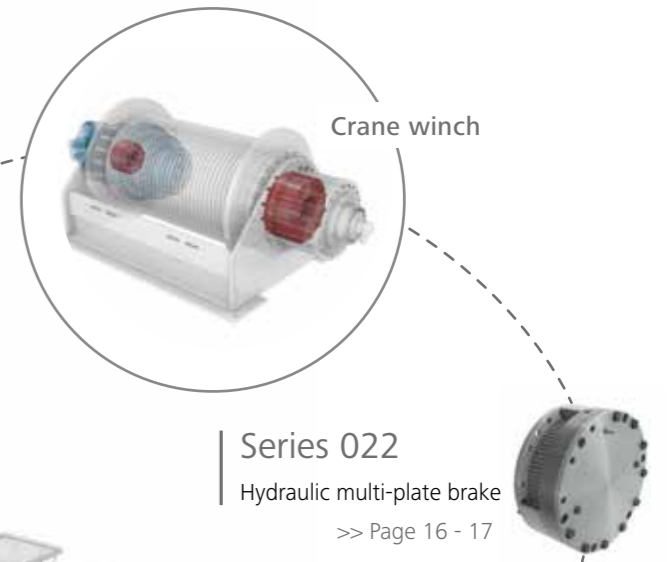
Series 022
Hydraulic multi-plate brake
>> Page 16 - 17

Gear ring rope winch



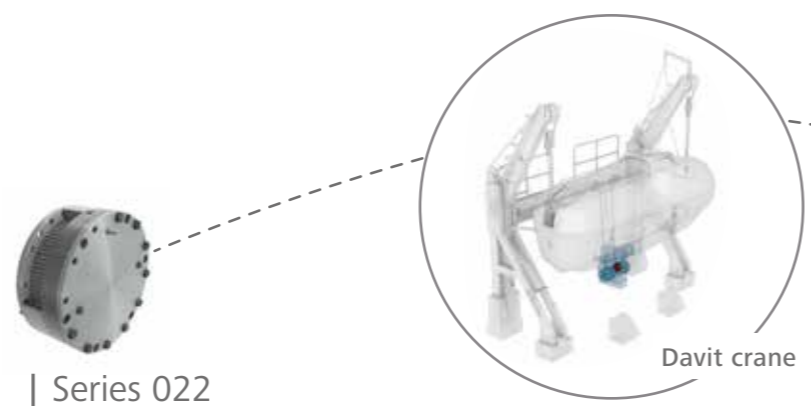
Series 022
Hydraulic multi-plate brake
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Luffing winch



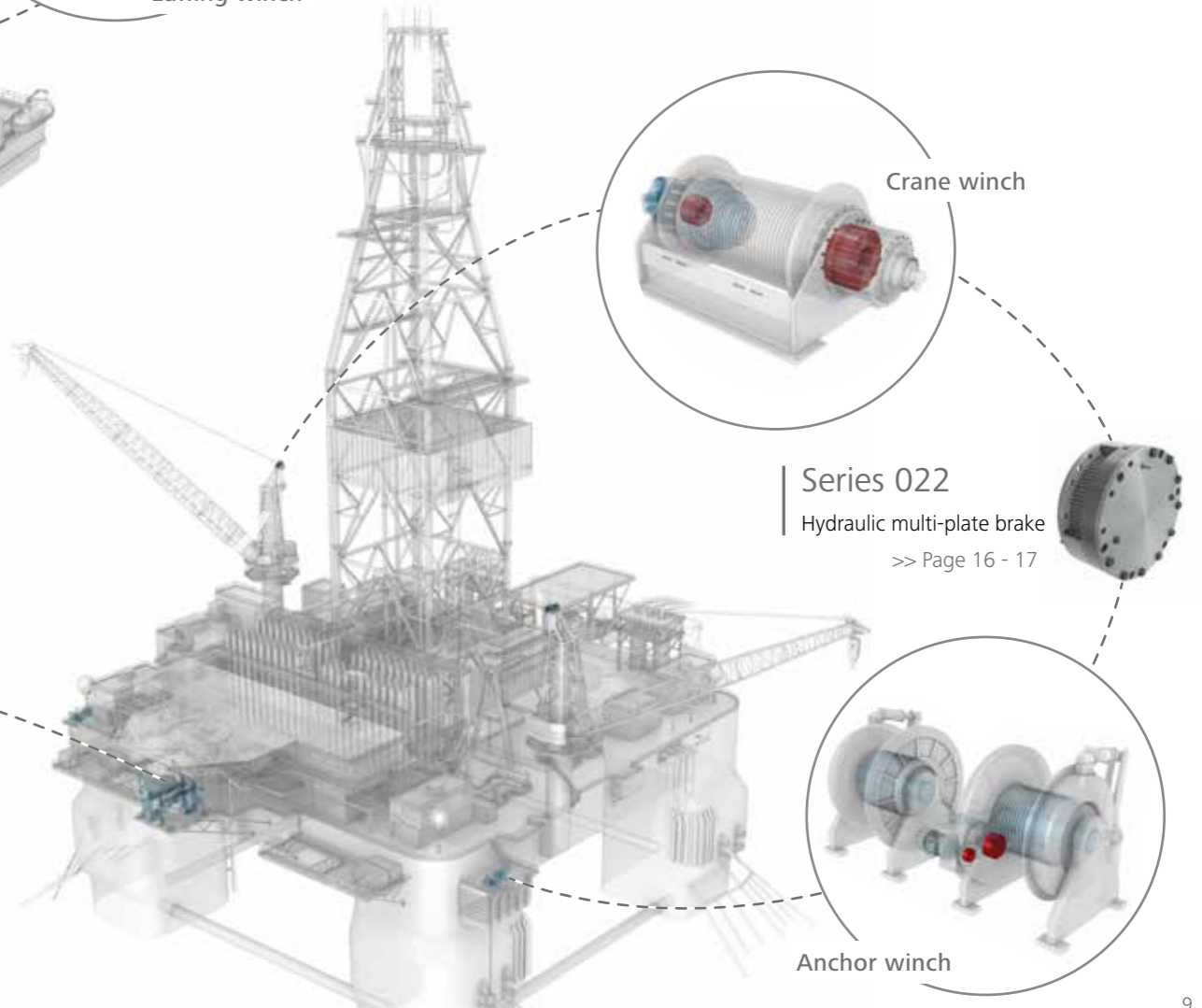
Series 022
Hydraulic multi-plate brake
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Crane winch



Series 022
Hydraulic multi-plate brake
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Davit crane



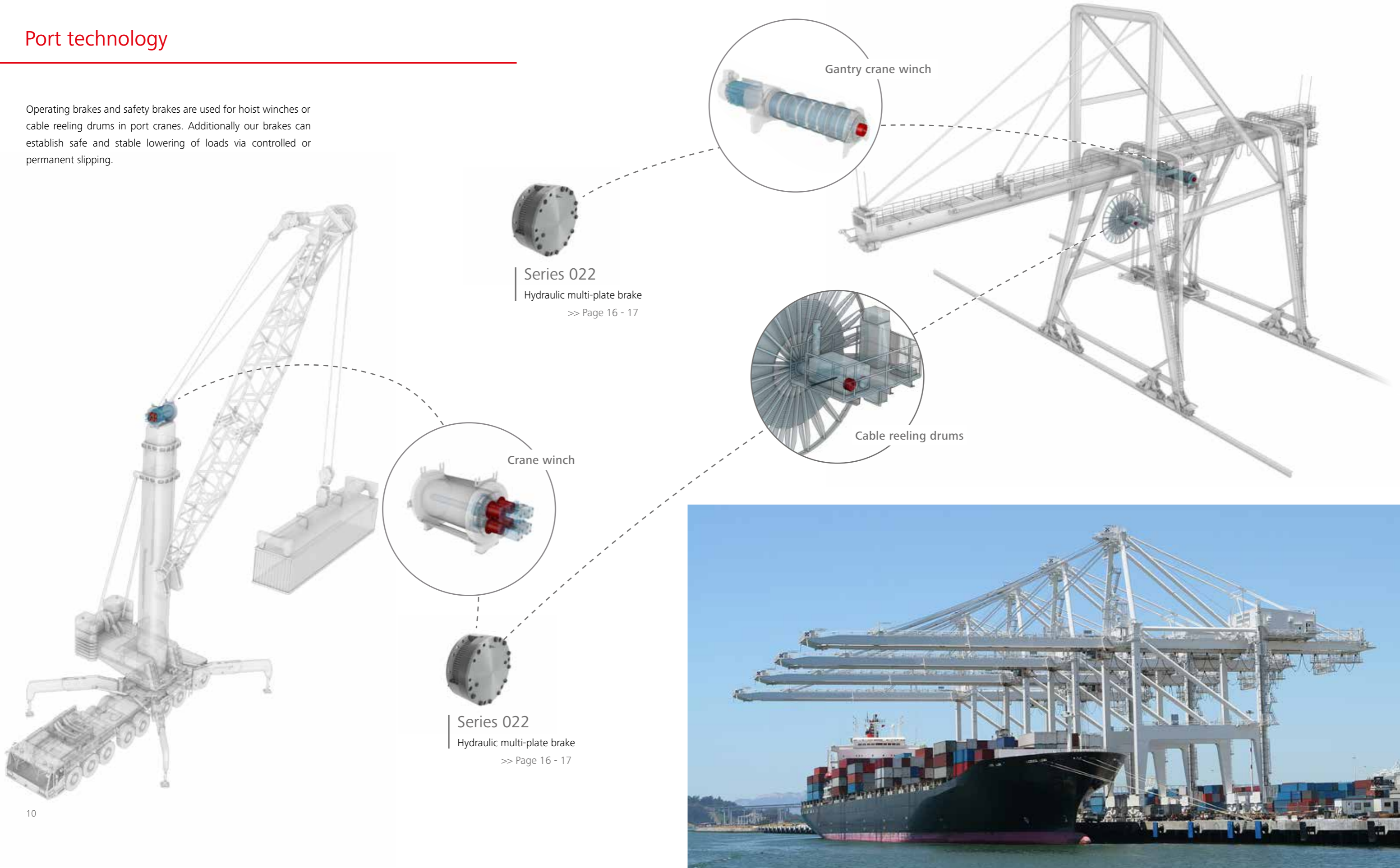
Series 022
Hydraulic multi-plate brake
>> Page 16 - 17

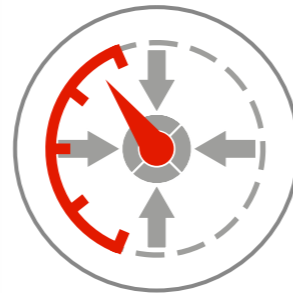
Anchor winch

Ortlinghaus multi-disk brakes provide an important function in winches for offshore applications. Our brakes are installed in gear ring rope winches, compact and heavy duty rope winches, including additional crane functions. The winches may be used for the main hoist or as winches for all auxiliary functions too. The brakes of the winches can hold the loads securely at defined positions and work as dynamic brakes in case of emergency stop. They also meet the customer requirements for cranes with passenger transportation. For anchor handling applications our products are suitable for dynamic and slipping functions.

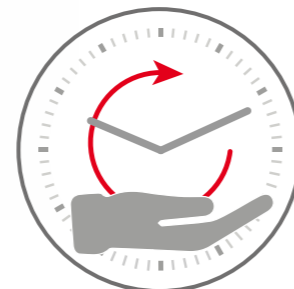
Port technology

Operating brakes and safety brakes are used for hoist winches or cable reeling drums in port cranes. Additionally our brakes can establish safe and stable lowering of loads via controlled or permanent slipping.





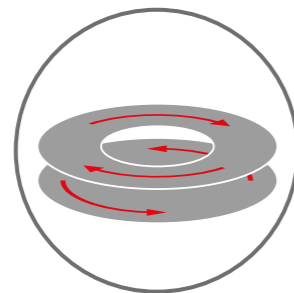
High torque density
The Ortlinghaus friction lining combination inside these clutches ensure highest torques at small dimensions.



Long service life
The clutch has a minimized wear due to friction systems fitted to the application.



Adjustable torque
The required torque will be adjusted prior to delivery.



Long slipping time
Due to the comparably extreme high energy absorption permanent slipping is possible.

Spring-applied slipping clutches

Ortlinghaus slipping clutches are always used when external peak loads need to be absorbed and smoothed safely. They provide secure protection from drive or rope breakage, especially for anchor/mooring winches in the winch sector. As the release torque can be set, torque is also transferred during slipping so no uncontrolled torque transmission can take place. A reset is not required either. Our safety clutches have proven their worth in decades of the most demanding marine use and undergo constant further development.

		Series 600				
	Feature	Size 47	Size 55	Size 63	Size 75	Size 84
Static torque	T_{stat}	1.800 Nm	3.000 Nm	6.000 Nm	23.000 Nm	30.000 Nm
Maximum slipping speed	n_{max}	3.500 min ⁻¹	3.000 min ⁻¹	2.500 min ⁻¹	1.500 min ⁻¹	1.000 min ⁻¹
Outer diameter	A	225 mm	285 mm	335 mm	395 mm	700 mm
Length	L	120 mm	140 mm	150 mm	200 mm	220 mm

Clutches Series 021

Hydraulically actuated multi plate clutch

Our friction systems have been tested out and trusted for many years. Clutches of our series reconcile high torque and thermal absorption rates as well as a favorable outer diameter. So big customers shaft diameters can also be realized.

Due to their wide power spectrum, smaller sizes can be achieved with corresponding weight and cost benefits, especially in higher

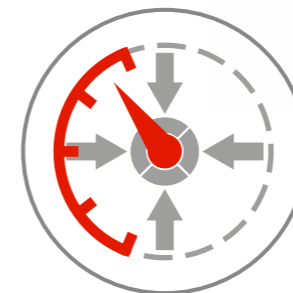
torque ranges. Optimized outer diameters make shorter distances between shafts possible, and in this way offer clear savings potential for the gearbox.

The hydraulic multi-plate clutch impresses with its comprehensive service friendliness. The plate stack, which is almost wear-free under defined conditions, can be accessed easily and enables an easy, safe and swift replacement of the plate stack pack. The special design also ensures that other components cannot fall out during replacement.

Ortlinghaus multi-plate clutches safely operate even largest masses. Under continuous development our proven technology sets today's industry standards.

		Series 021 ¹⁾				
	Feature	Size 66	Size 78	Size 85	Size 91	Size 96
Static torque	$T_{stat.}$	33.7500 Nm	94.500 Nm	270.000 Nm	472.500 Nm	945.000 Nm
Operating pressure	P	25 bar	25 bar	25 bar	25 bar	25 bar
Speed ²⁾	n_{max}	1.800 min ⁻¹	1.250 min ⁻¹	900 min ⁻¹	750 min ⁻¹	600 min ⁻¹
Outer diameter	A	365 mm	505 mm	700 mm	860 mm	1050 mm
Max. bore diameter	B_{max}	125 mm	190 mm	265 mm	315 mm	400 mm
Length	L	195 mm	275 mm	360 mm	410 mm	510 mm

1) extract of available executions and other executions on request
2) higher speeds on request



High torque density

The Ortlinghaus friction lining combination inside these clutches ensure highest torques at small dimensions.



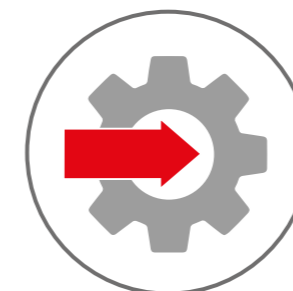
Sustainability

Environmentally compatible oils (e.g. EAL oils) can be used for our clutches according to our released oil list.



Efficient operation

The nearly loss-free torque transmission ensures efficient operation.



Simple integration

Customizable interfaces of these clutches allow a simple integration in different drive train solutions.



Optimized maintenance conditions

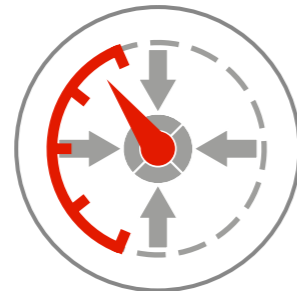
These clutches deliver durability and long service intervals.



Slipping mode as option
The friction system is configurable for slipping applications.



Sensored monitoring possible as option
The integration of sensors for diverse technical parameter are possible on request.



High torque density
The Ortlinghaus friction lining combination inside these brakes ensure highest torques at small dimensions.



Low maintenance effort
Ortlinghaus wet running brakes provide a long service life and safety due to an optimal design, durability and functional reliability.



High engineering competence
For more than 75 years Ortlinghaus designs clutches and brakes for thousands of different applications - safe, experienced and reliable.



Verified quality
Proven process steps from individual dimensioning to final inspection of every single brake on our end of line test bench ensures first class quality.

Hydraulic multi-plate brakes

The series 022 is one of the most successful Ortlinghaus products with over one million sold units.

Wherever brakes for braking, holding or safety function with a long service life are required, this series of Ortlinghaus brakes are in service around the world.

Advantage of these wet-running, hydraulically released and spring-applied multi-plate brakes is to realize high torques in a compact design.

The spring-loaded brakes are frequently used as safety brakes, which automatically work in cases of pressure failure. The brakes can achieve full torque when there is no pressure.

		Series 022 ¹⁾				
	Feature	Size 47	Size 55	Size 69	Size 78	Size 84
Holding torque	T _{stat.}	2.630 Nm	4.300 Nm	11.590 Nm	27.300 Nm	48.800 Nm
Operating pressure	p _B	32 bar	34 bar	38 bar	32 bar	30 bar
Speed ²⁾	n _{max}	4.300 min ⁻¹	3.500 min ⁻¹	2.450 min ⁻¹	1.800 min ⁻¹	1.300 min ⁻¹
Outer diameter	A	245 mm	290 mm	400 mm	555 mm	710 mm
Length	L	110 mm	135 mm	165 mm	220 mm	255 mm

1) extract of available executions and other executions on request
2) higher speeds on request

Oil inlet

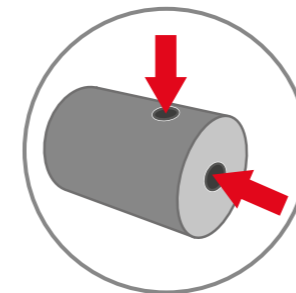
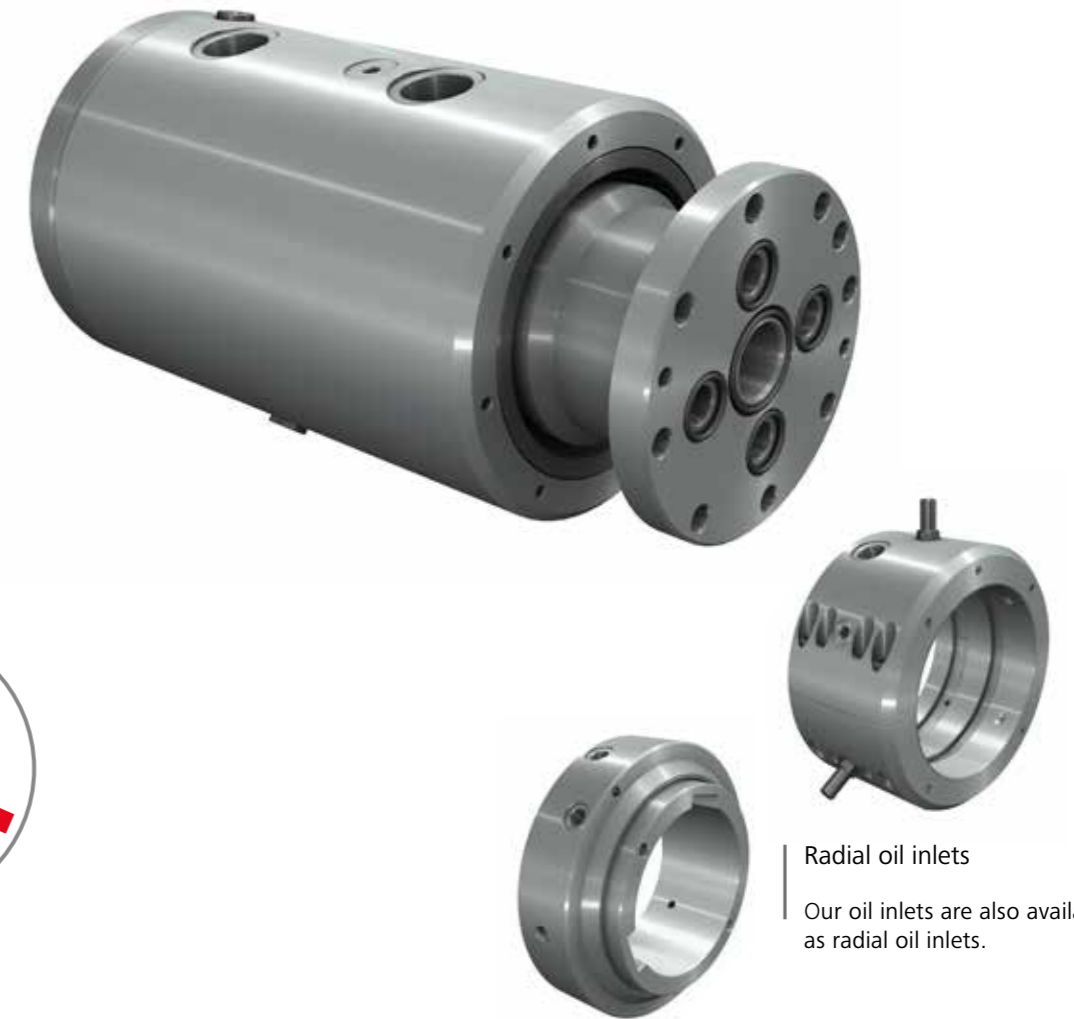
Single and multi-channel rotary inlets

Ortlinghaus has also been manufacturing single and multi-channel rotary inlets for many decades now. These units often serve as oil actuated stand-alone accessories. But they are also frequently combined with our clutches to supply both pressurized oil for clutch activation and for additional oil cooling.

These units are proven machine components which feed pressurized oil and cooling oil into rotating shafts.

Axial oil inlets are available as well as radial oil-inlets. In addition to our standard units Ortlinghaus also develops and manufactures rotary inlets to customers own requirements.

For example, it is even possible to develop and provide rotary inlets with more than three channels which are able to carry different media.

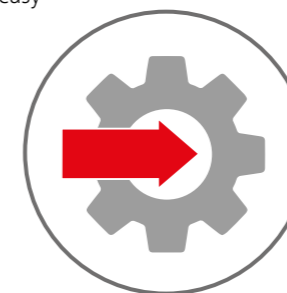


Axial and radial executions available

Oil inlets can be supplied in axial or radial design. If there is no free access to push the radial oil inlet from one side onto the shaft, a split version is available for easy assembly.

Radial oil inlets

Our oil inlets are also available as radial oil inlets.



Simple integration

For different setups Ortlinghaus can supply different mounting options of oil inlets which allows a simple integration.



One or two channel executions available

Ortlinghaus delivers one and two channel oil inlets. More channels on request.

Axial oil inlet				
	Feature	Size 22	Size 27	Size 35
Operating pressure ¹⁾	p_B	30 bar	30 bar	30 bar
Speed ²⁾	n	2.200 min ⁻¹	1.800 min ⁻¹	1.400 min ⁻¹
Outer diameter ³⁾	A	120 mm	160 mm	180 mm
Length	L	165 mm	247 mm	288 mm
Number of channels / connections	$i \times M$	2 x G1/2	2 x G3/4	2 x G1
Oil volume ^{4) 5)}	V_{oil}	35 L /min	100 L /min	150 L /min

1) higher pressures on request

2) higher speeds on request

3) without oil catching ring, oil catching ring on request

4) multi-channel executions for higher oil volumes on request

5) at operating viscosity 68 cSt and pressure loss ≤ 2 bar @50°C



In good hands from the beginning



Get in touch

Talk to one of our experts. Our Industry Manager Steve Boccarius is pleased to get in touch with you.

	Steve Boccarius
	Industry Manager Winch Technology
Phone	+49 (0) 2196 85-401
Mail	steve.boccarius@ortlinghaus.com



Enquiry

- via contact form on our website
>> www.ortlinghaus.com
- directly via Mail
- contact through one of our world wide sales representatives
> www.ortlinghaus.com
>> Contacts & Media
>>> Contacts



Technical consultancy

- many thousands of products for different marine propulsion drive train applications. in the field
- selection of technically and economically best fitting products



Order

- quick response times
- friendly support
- flexible order handling



Production

- more than 100 years of production know how
- high quality



Delivery

- safe and reliable shipping methods according to customer requirements
- world wide delivery
- known consigner



After Sales

- world wide after sales service
- high availability
- commissioning
- >> service@ortlinghaus.com

Ortlinghaus worldwide

Founded in: 1898

Employees: > 550

Subsidiaries: Ortlinghaus (U.K.) Ltd. / England
 Ortlinghaus France / France
 Ortlinghaus AG / Switzerland
 Ortlinghaus Drive Technology (Shanghai) Co., Ltd /

China
 Ortlinghaus Drive Technology India Pvt.Ltd. / India
 OOO „Ortlinghaus RUS“ / Russia
 Ortlinghaus America Latina / Brasil

Manufacturing: Wermelskirchen / Germany
 Gams / Switzerland
 Jinan / China

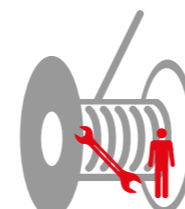
Sales: Worldwide via agencies



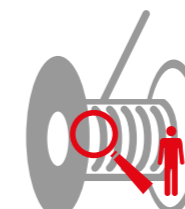
Original spare parts



Product overhaul at Ortlinghaus



Service & repair worldwide



Condition check



High After-Sales-Service availability (24/7)

● Sales & Service hub with spare parts
 ● Sales & Service hub

WINCH INTECHNOLOGY TECHNOLOGY

Ortlinghaus-Werke GmbH
Kenkhauser Str. 125
42929 Wermelskirchen
Germany

Phone: +49 (0)2196 85-0
info@ortlinghaus.com

www.ortlinghaus.com