

EN

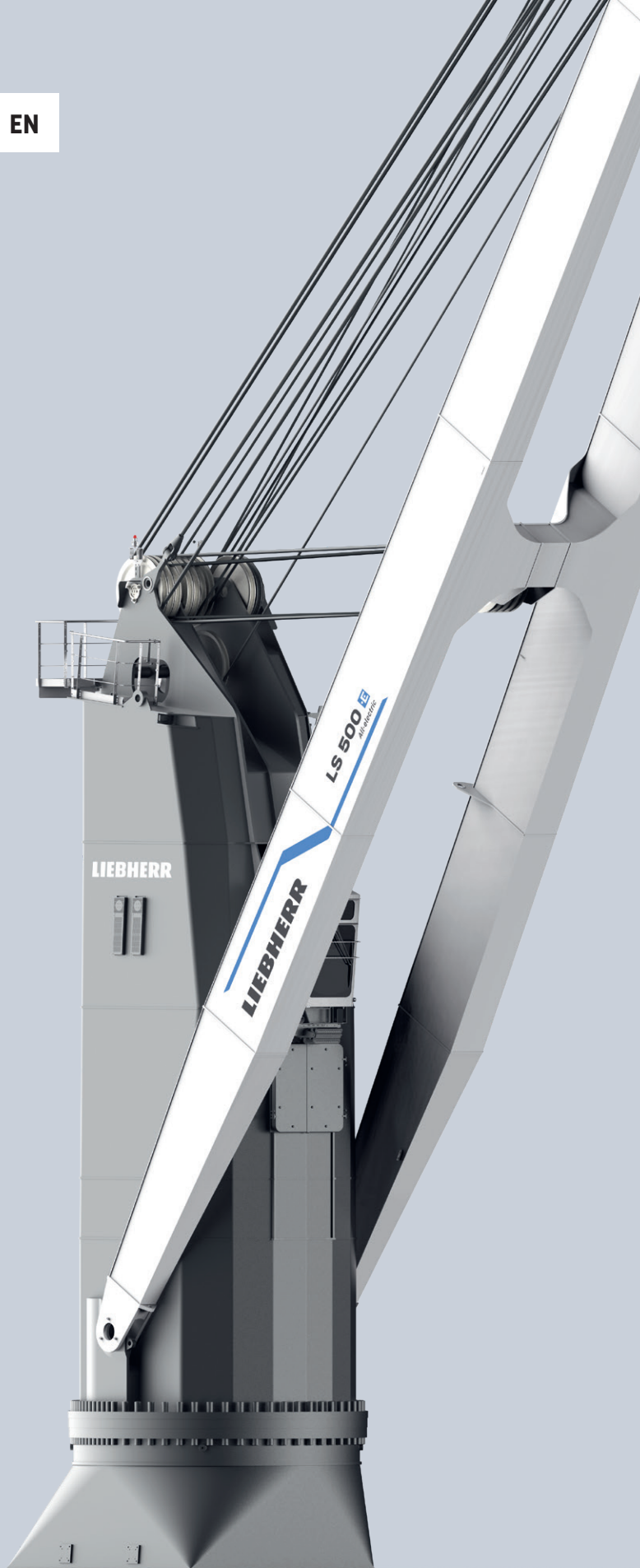
LS 500 E

All-electric
heavy lift crane

www.liebherr.com

LIEBHERR

Ship cranes



Maximum lifting capacity
Main hoist: 500 t
Auxiliary hoist: 60 t



Maximum outreach
42 m

Technical data

Speeds

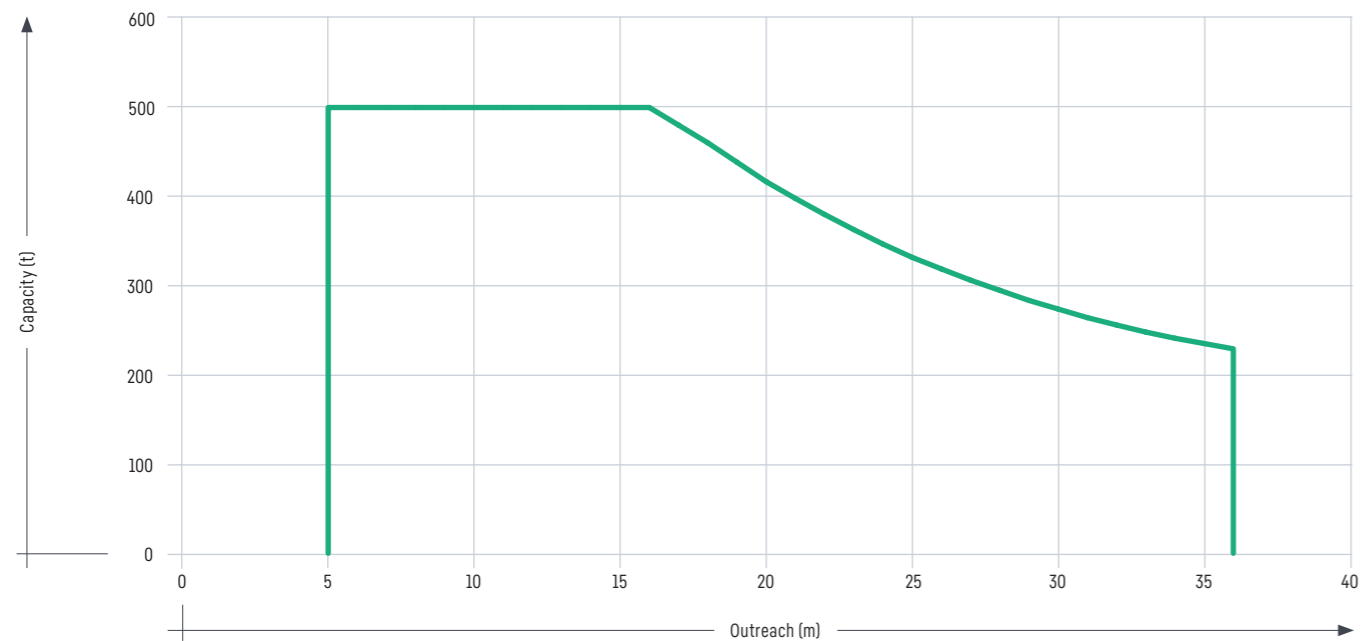
Hoisting/lowering main hoist	
500t	0 m/min - 2.0 m/min
≤ 100t	0 m/min - 8.0 m/min
Hoisting/lowering auxiliary hoist	
60t	0 m/min - 12.9 m/min
≤ 30t	0 m/min - 25.5 m/min
Slewing	
Reduced torque	0 rpm - 0.6 rpm
Max. torque	0 rpm - 0.3 rpm
Slewing range	360° unlimited
Luffing	
230 t (from max. to min.)	approx. 260 sec
0 t (from max. to min.)	approx. 175 sec

Design conditions

Maximum admissible	
Ambient working temperature	-20 °C to +45 °C
Humidity maximum	93%
Maximum wind speed	
Working condition	20 m/sec
Parking condition	63 m/sec

Load diagram

■ hook operation*



*Load chart depending on operation conditions and classification societies

Working radius

Min. to max. (main hoist)	5.00 m - 36.0 m
Min. to max. (auxiliary hoist)	7.10 m - 39.0 m

Electric data of the motor

Type of motors	three phase squirrel cage
Electric Motor Duty Cycles	S9
Electric motors	frequency controlled
Main power supply	440V, 60 Hz 3ph +N
Auxiliary power supply	440V, 60 Hz 3ph +N

Weight

Weight of crane (without pedestal and lifting attachments)	approx. 250 t
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General arrangement

Auxiliary hoist for quick lifts with less load

Box boom with low self-weight

Optional stainless steel cabin

Pedestal adapter for side mounted cranes

Non-corrosive polyamide rope pulleys

Vertical boom rest with locking pin inside the crane column

Maintenance door for optimal service

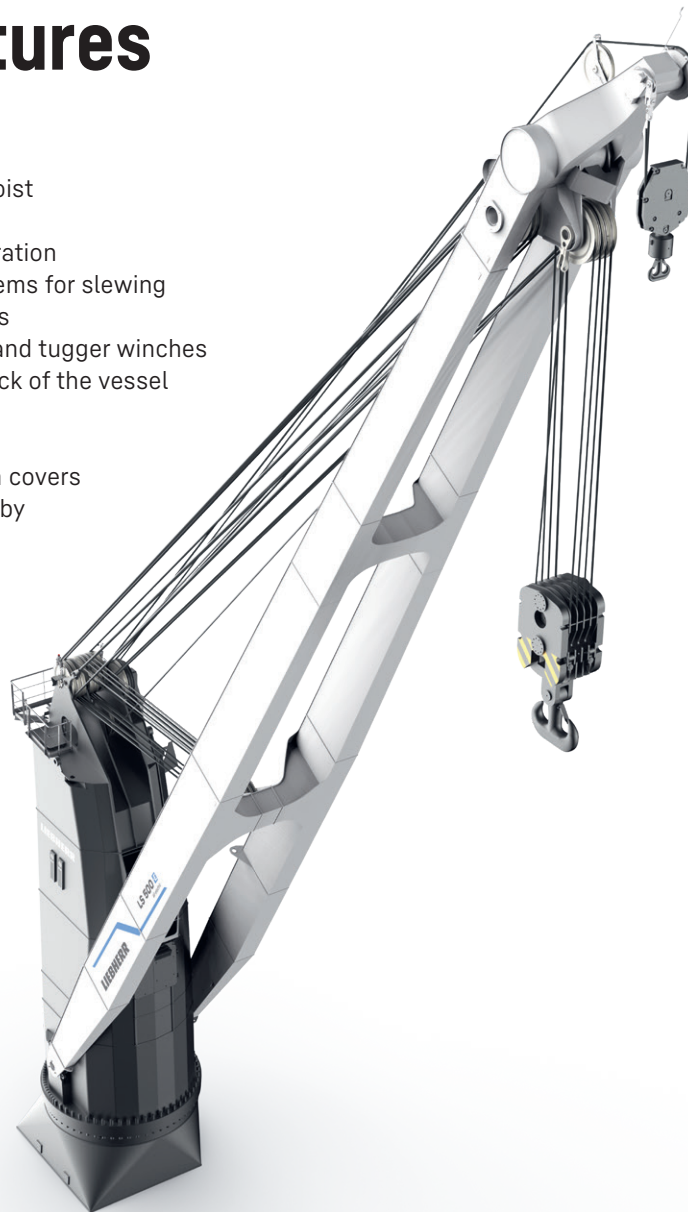
Pivot bearing with greasing lines inside crane column

Advantages

- All components inside the crane column
- Components developed and produced in-house
- Precise and reliable crane control system Litronic
- Fully electric crane with inverter technology
- Power saving through active communication between the crane and ship energy management systems
- Multi-hook mode for simultaneous operation of the hooks

Optional features

- 100 t auxiliary hoist and 10 t sling hoist
- Personnel lift
- Synchronised lifting in tandem operation
- Intelligent automatic greasing systems for slewing bearing, pivot point and rope pulleys
- Remote control for main functions and tugger winches
- Additional monitor on the bridge deck of the vessel
- Radio communication system
- Liebherr remote service
- Faster opening and closing of hatch covers and handling of tween deck panels by switching the operating logic
- Pendulum garages for auxiliary hoist and sling hoist
- Removable tugger-winch with fibre ropes



Liebherr ship cranes

Litronic®

Developed and manufactured in-house by Liebherr, the Litronic system is an innovative, all-in-one solution that integrates cutting-edge technologies for advanced and reliable crane control. Acting as the direct interface between the crane and the operator, Litronic provides real-time operational data through various analysis tools, ensuring optimal performance. Thanks to the intelligent control system, the crane always achieves maximum speed depending on the respective load. The system also ensures a stepless load curve through automatic load moment control, optimising utilisation in every lifting situation. Adjustment occurs automatically – no manual switching is required. Designed for flexibility, Litronic allows for the modular integration of additional functionalities, offering a tailored solution for diverse operational needs.

Liebherr Connect

Liebherr Connect uses the latest technology to ensure reliable and safe machine connectivity. It is the requirement for the use of digital Liebherr products and services, such as LiDAT smartApp or LiDAT Web. Customers benefit from stable and secure machine networking, which also enables remote access. The machine has a system for recording and transmitting machine and/or location data. Liebherr uses this data exclusively for customer service and product development. The customer hereby grants their express - revocable - consent at any time for data to be recorded and transferred.

XpertAssist

The XpertAssist subscription offers an extension of the common remote maintenance service, including a direct audio/video uplink to Liebherr's special trained customer service, featuring augmented reality elements for enhanced diagnosis and advanced technical advice.