CBG 310

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LIEBHERR

Port and transshipment solutions

Maximum lifting capacity
45 t (hook operation)
30 t (grab operation)

Maximum outreach
30 m

Ship size
Up to capesize

Technical data

Speeds

Hoisting/lowering	
Hoisting/lowering up to 10t SWL	0m/min - 130m/min
Hoisting/lowering with 30t SWL	0m/min - 64m/min
Hoisting/lowering with 45t SWL	0m/min - 43m/min
Slewing	
Speed	0rpm - 1.2rpm
Range	360° unlimited
Luffing time (from 5.1 - 30m approx.)	
Maximum luffing time (jib length 30m)	approx. 45sec

Design conditions

Maximum admissible	
Heel / trim	5°/2°
Ambient working temperature	-20°C to +45°C
Humidity maximum	93%
Maximum wind speed	
Working condition	20m/sec
Parking condition	63m/sec

Electric motor

Type of motor	three phase squirrel cage
Class of protection	IP 54
Class of insulation	F/B
Starting	Star/Delta
Nominal output	470kW - 540kW
	S6 - 40% ED
Main power supply	400V - 690V
Auxiliary power supply	230V, 3ph

Crane classification

The maximum group classification according to FEM 1.001 (latest edition) of the CBG crane relates to full load cycles in grab operation and is as follows:
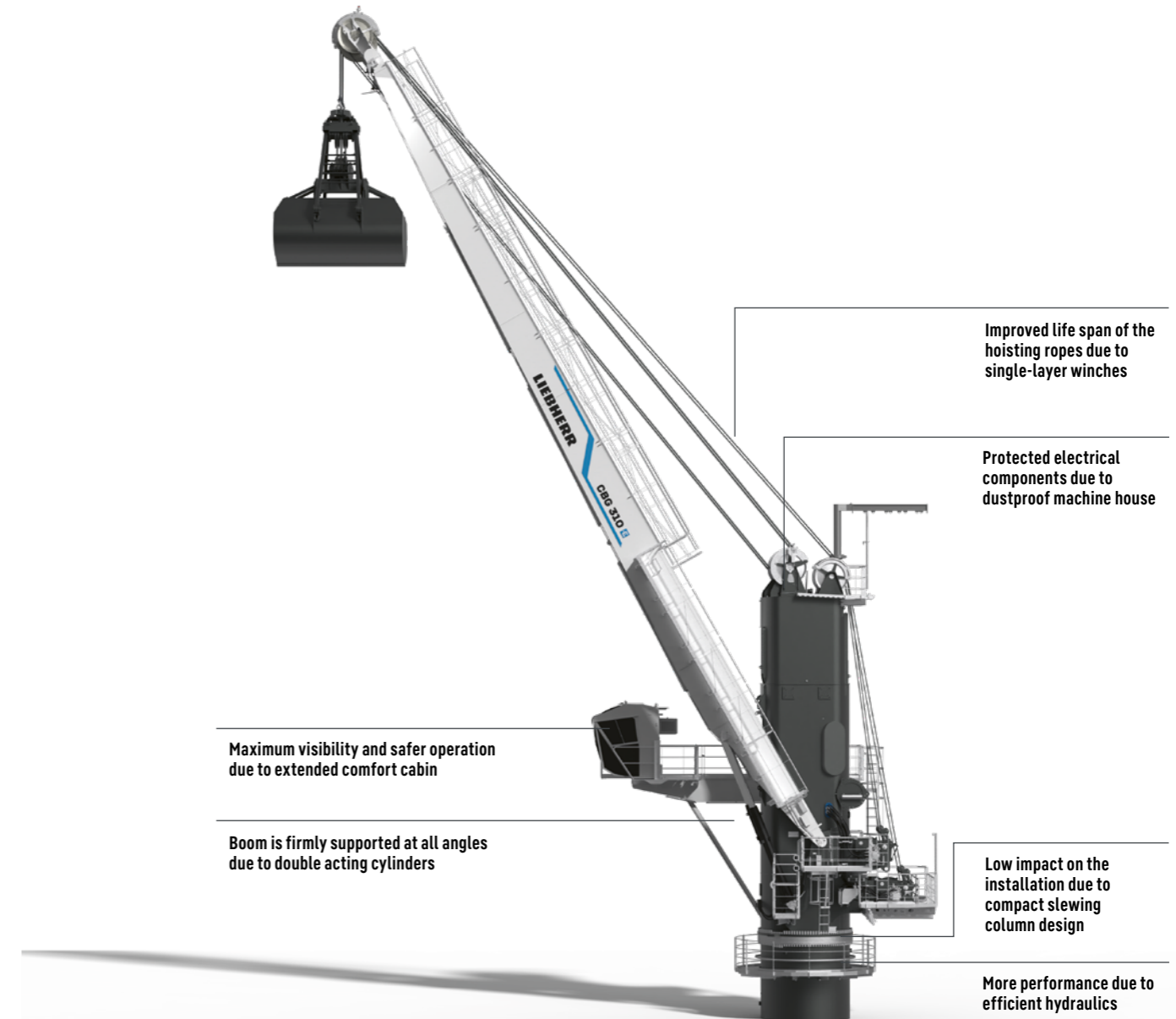
	< 30t
The crane as a whole	A8/Q3/Q7

Load diagram*

Legend:
- Grab operation (open water)
- Grab operation (sheltered water)
- Hook operation (open water)
- Hook operation (sheltered water)

Capacity (t) vs Outreach (m)
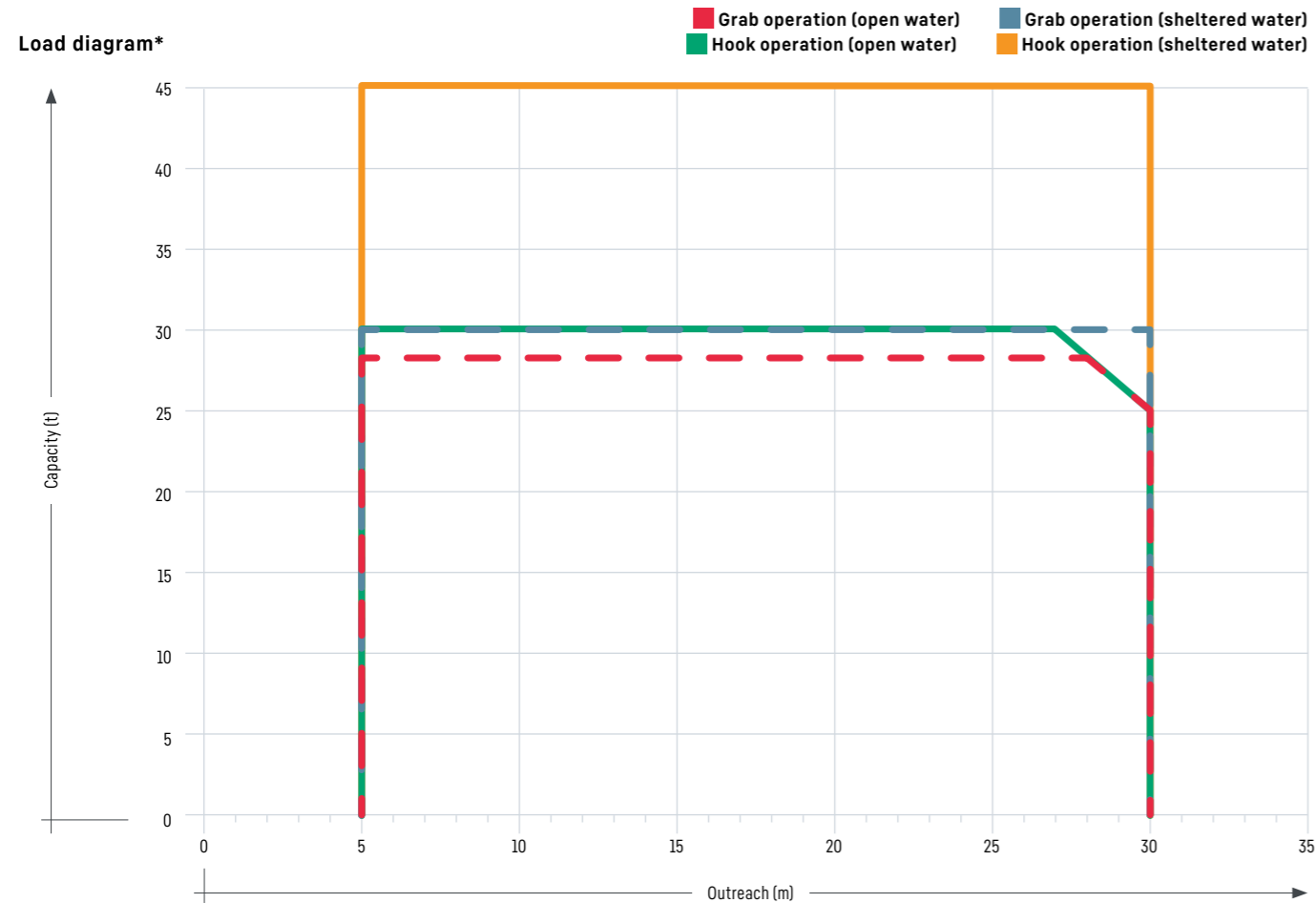
*According Lloyd´s Register: „Code for Lifting Appliances in a Marine Environment" (edition 2021)

General arrangement

- Improved life span of the hoisting ropes due to single-layer winches
- Protected electrical components due to dustproof machine house
- Maximum visibility and safer operation due to extended comfort cabin
- Boom is firmly supported at all angles due to double acting cylinders
- Low impact on the installation due to compact slewing column design
- More performance due to efficient hydraulics

Advantages

- Litronic system designed and tested by Liebherr
- Components tested and proven for extreme conditions and performance
- Long life hydraulic luffing cylinders and hydraulic tubes for reduced maintenance requirement
- Service friendly access to all components due to the maintenance platforms
- Less maintenance due to use of hydraulic tubes instead of hoses

Optional features

– Extended working radius with a 10 m eccentric platform
– 32 m boom configuration for fixed installations
– Operational flexibility for special lifting equipment
  by installation of electrical cable drum
– Intelligent automatic greasing systems
– Camera systems for different areas of the crane
– Complementary service devices

SmartGrip®

The SmartGrip technology is capable of optimising the filling rate of the grab in a self-learning manner. In this way, SmartGrip learns after only a few lifting cycles how to maximize capacity utilisation of the grab even for less experienced crane operators.

LiCAS

Liebherr cranes can be equipped with the Liebherr Collision Alert System (LiCAS). This additional assistance system sets new levels in operational safety during heavy-duty cargo handling. LiCAS supports the crane driver by permanently detecting the distances between several cranes and warns of potential unsafe conditions.

LiDAT smartApp

With LiDAT smartApp, it is possible to analyse your crane (operating and performance) data and get answers from it almost immediately. That leads to direct decisions. The ability to work faster gives operators a competitive edge they did not have before. The data analytics helps to detect bottle necks and to identify new opportunities.

LiSIM®

LiSIM for the CBG series increases port safety and productivity by providing a cost-effective and highly efficient crane operator training solution. The development of this sophisticated training tool was prompted by Liebherr's extensive experience in crane operator training. Based on the original Litronic® crane control system, LiSIM® is the only realistic virtual solution available on the market for the training of the precise and innovative control system of Liebherr cranes.