

PRELIMINARY



563 kW Diesel (Stage V)



570 kW Diesel (Stage II)

615 kW (Electro)



90 t



41 m

PORTCAB

9300E

Harbour mobile crane

Stage V





9300E Harbour mobile crane. Simply reliable.



1964: SK 20 cable-operated port crane during cargo handling

Values of a family-owned company

- 65 years of experience in designing and constructing duty cycle cranes and draglines
- Uncompromisingly high performance in all areas
- Technology that can be mastered: High-quality components without over-engineering
- Long service life and high value retention

Your top benefits:

1 Flexible operation

Ideal for handling containers, bulk goods, cargo and heavy loads up to 90 t

2 Ideal crane size for many ports

Ideally suited to the following types of ships: Feeder ships, standard ships, handysize, handymax, supramax

3 Innovative technologies – modern, energy-saving drives

Diesel-hydraulic with Green Efficiency technology
Electro-hydraulic with eGreen technology



4 Top-notch, effective handling performance

Powerful winches, high lifting speeds of up to 100 m/min
Overlapping movements of the grab closing, rope lift and slewing thanks to high power reserves

5 High safety standards

Low ground pressure thanks to broad outrigger area and large outrigger plates
Homogenous load transmission into the ground through individual load balance on 14 sets of wheels (mobile undercarriage)

6 Maximum comfort – ergonomically optimized work station

Ideal conditions in the Portcab for the crane operator



7 Simplicity for top availability - Keep it simple

Simple, proven technology and module components keep complexity under control
Manageable control through mechanical, hydraulic or electrical standard components



Clear view and comfort

thanks to spacious Portcab with eye level of 21.2 m

World's first for the port crane:

Safety and comfort thanks to Skylift 1100 cab elevation

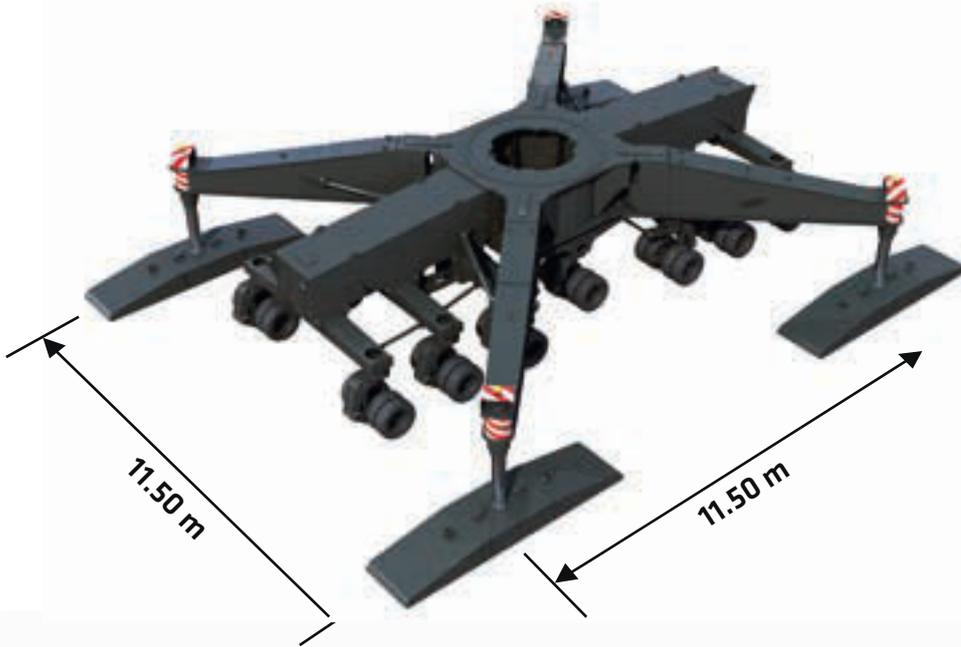
High-performance

Motor slewing unit 90 t

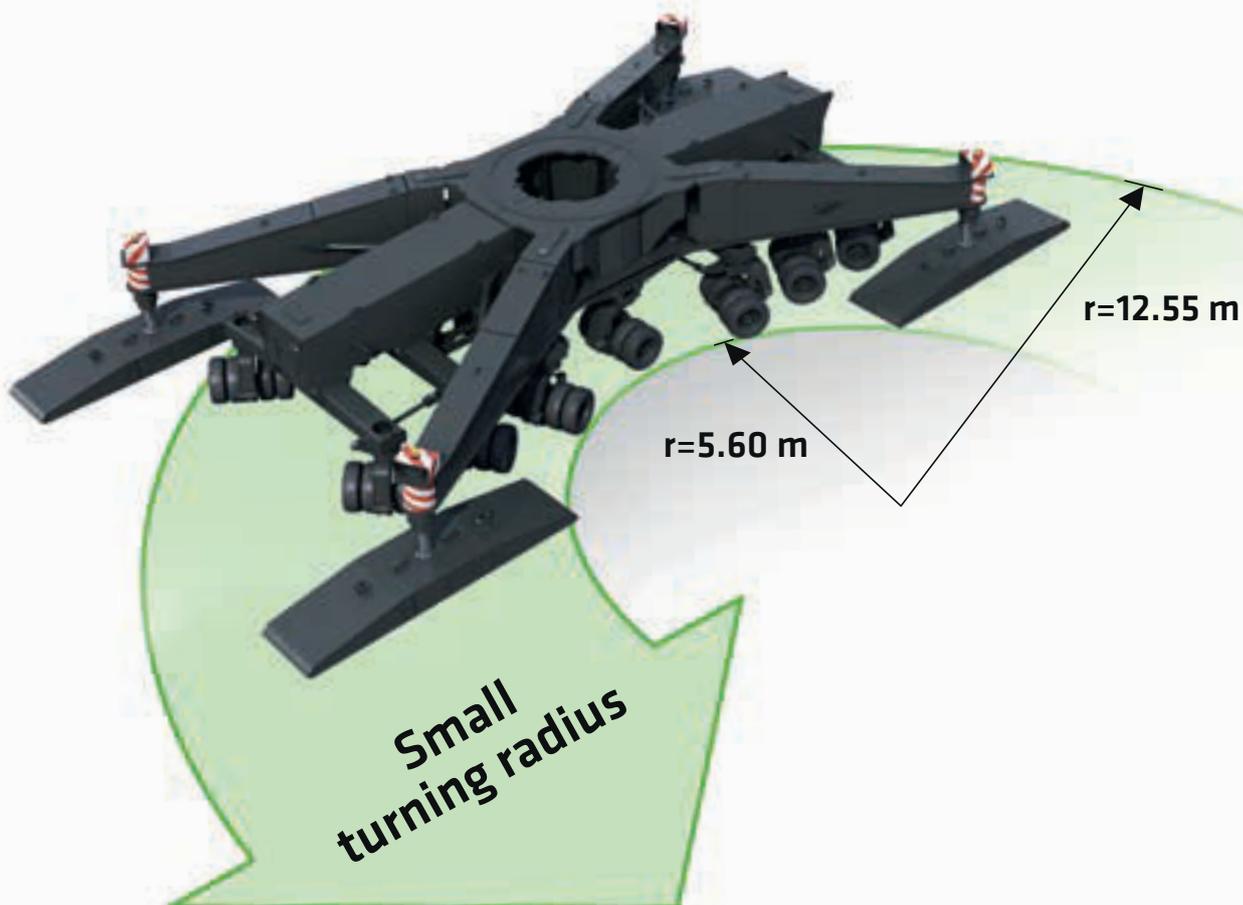
Mobility and safety

Low, uniform ground pressure through load balance on all 14 sets of wheels with all-wheel steering

9300E Maneuverability. Simplicity in practice



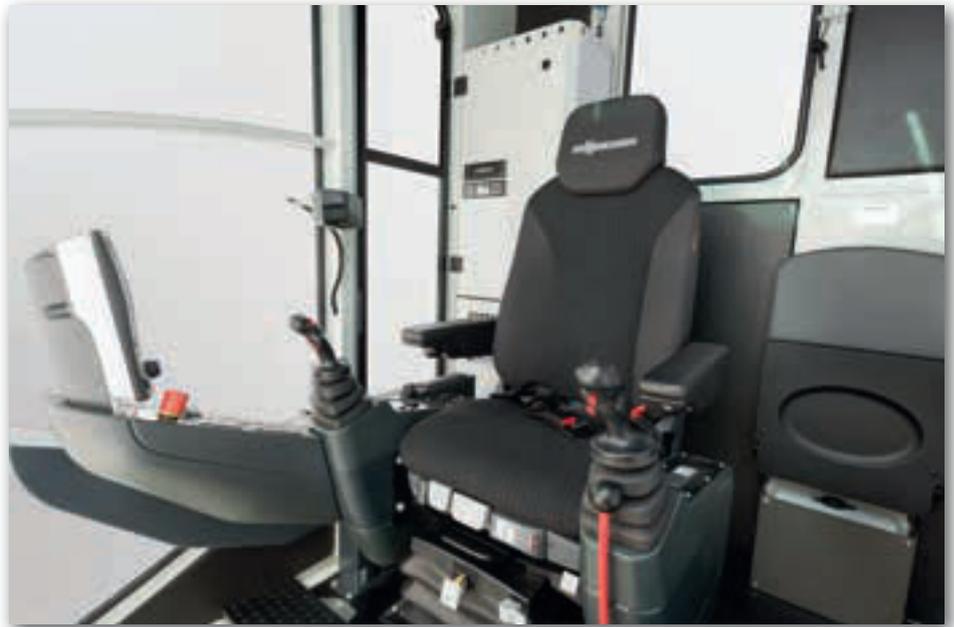
- Stable star undercarriage with ideal force transmission into the ground
- High stability thanks to large, star-shaped outrigger area
- Uniform ground load thanks to 56 tires on 14 axles with individual load balance through corresponding level regulation
- Simple, reliable and quick maneuvering thanks to all-wheel steering
- Very good agility and maneuverability: Small turning radius



9300E Top-notch ergonomics



- First-class, air-sprung comfort seating with heating and ventilation
- Comfortable and highly responsive joystick control
- Maximum sensitivity even during overlapping movements
- Sun protection for roof and side windows
- Intuitively operable SENNEBOGEN SENCON control system with integrated load torque limiting system
- Ideal view thanks to cutting-edge camera system



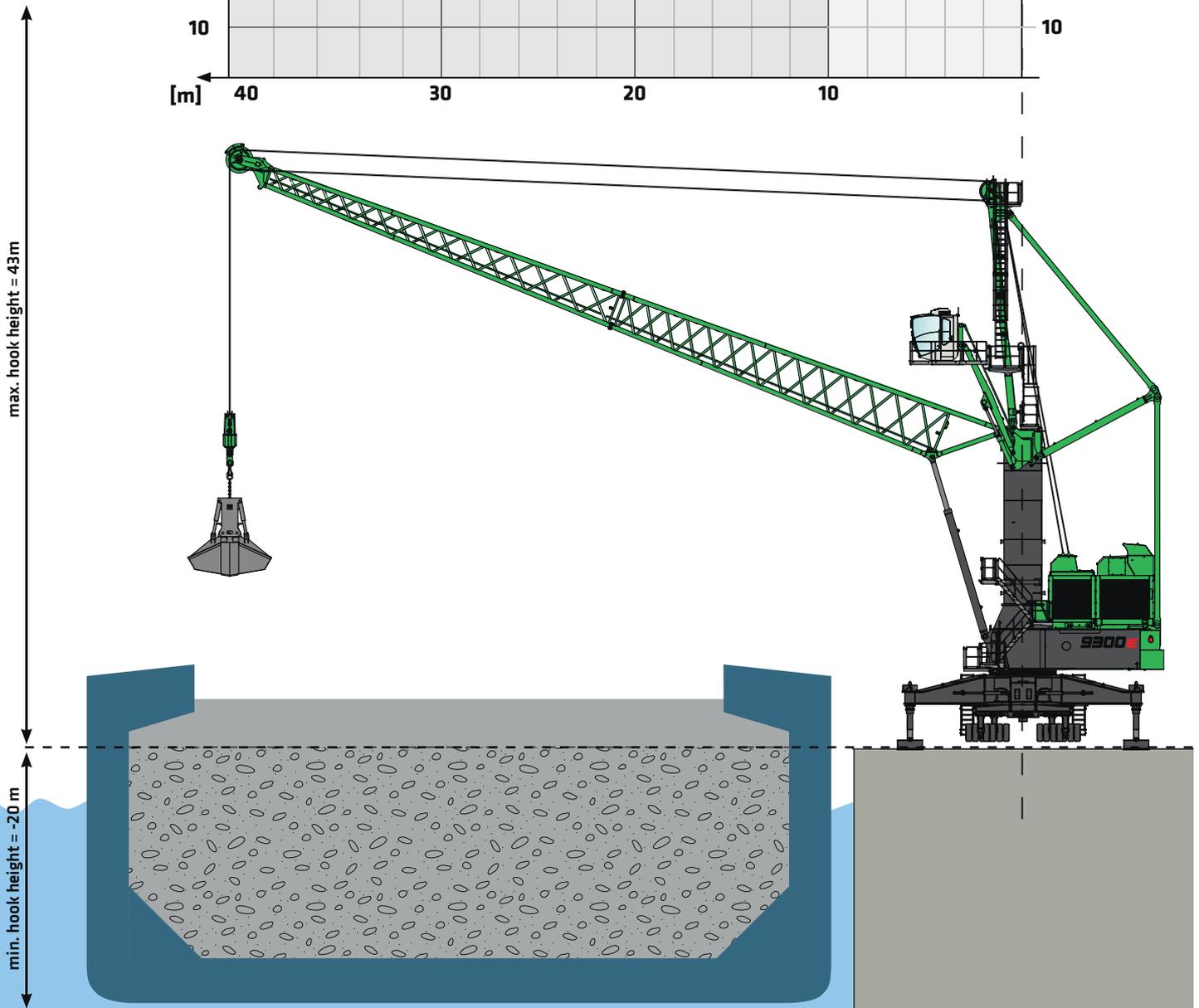
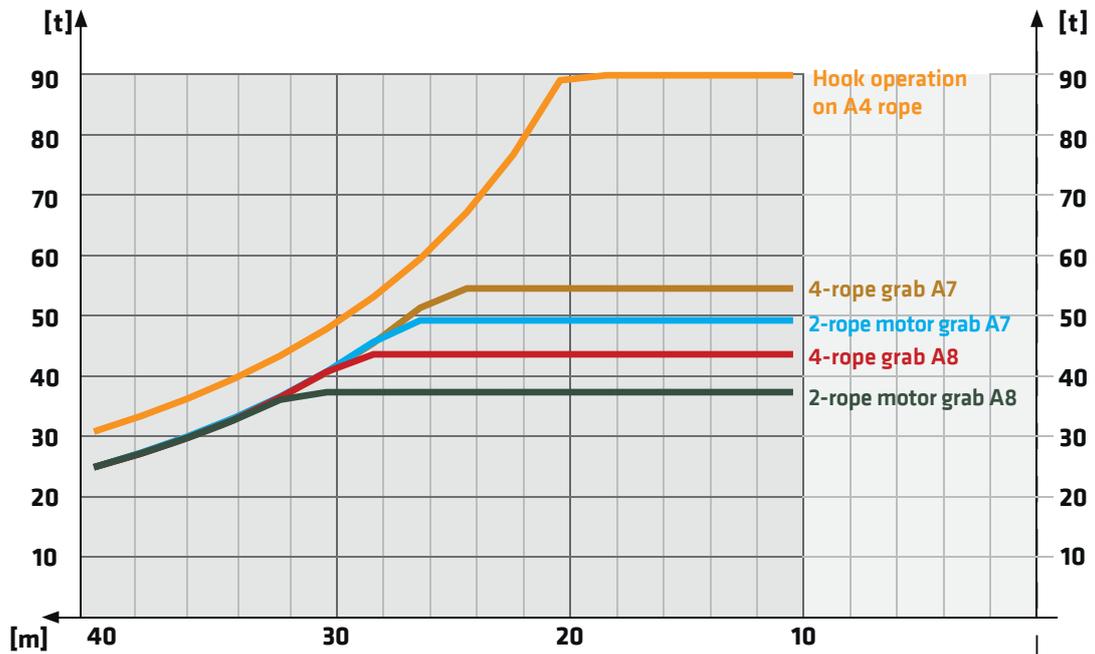
First-class comfort and safety

- Access to Portcab at a height of just 9 m
- Safe and comfortable raising to working position in just a few seconds thanks to innovative Skylift 1100 cab elevation
- Ideal overview of the workarea thanks to 21.2 m eye level
- Ideal position to operate and maneuver the machine in the lower cab position
- Excellent view into the ship thanks to individual cab positioning

21.2 m
Eye level



9300E Bulk cargo handling



9300E High performance in bulk cargo handling

Four key advantages:

- 1. Keeps you in control:**
Our systems support the operator without depriving him of control.
- 2. Your remain independent:**
Our technology enables the operator to service the machine on his own without expert tools.
- 3. Built for the harbour:**
Maritime climate coating and noise-reducing sandwich panels with high-grade coating.
- 4. You stand to benefit:**
from our integrated approach, from consultation to commissioning and training: We are only satisfied once you are. Guaranteed.

Classification / % tipping load	Hook operation Load capacity on rope*	Grab operation				Grab operation			
	A4 / 75%	4-rope grab		2-rope motor grab*		4-rope grab		2-rope motor grab*	
		A7 / 67%	A7 / 50%	A7 / 67%	A7 / 50%	A8 / 67%	A8 / 50%	A8 / 67%	A8 / 50%
Radius [m]	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]	
10.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
11.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
12.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
13.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
14.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
15.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
16.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
17.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
18.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
19.0	90.0	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
20.0	89.2	54.8	54.8	49.1	49.1	43.2	43.2	38.7	38.7
22.0	76.9	54.8	51.1	49.1	49.1	43.2	43.2	38.7	38.7
24.0	67.3	54.8	44.7	49.1	44.2	43.2	43.2	38.7	38.7
26.0	59.6	51.8	39.6	49.1	39.2	43.2	39.6	38.7	38.7
28.0	53.2	46.3	35.4	45.8	35.1	43.2	35.4	38.7	35.1
30.0	48.0	41.7	31.9	41.3	31.6	41.7	31.9	38.7	31.6
32.0	43.5	37.8	28.9	37.5	28.7	37.8	28.9	37.5	28.7
34.0	39.6	34.5	26.4	34.2	26.2	34.5	26.4	34.2	26.2
36.0	36.3	31.6	24.2	31.4	24.0	31.6	24.2	31.4	24.0
38.0	33.4	29.1	22.2	28.9	22.1	29.1	22.2	28.9	22.1
40.0	30.9	26.8	20.5	26.8	20.5	26.8	20.5	26.8	20.5

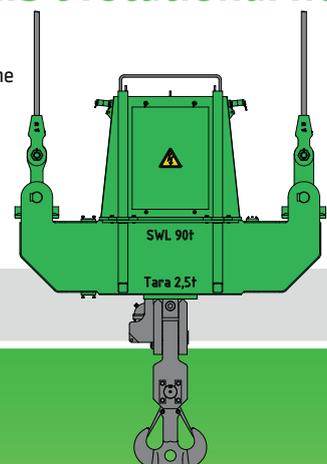
Note:

- The specified load ratings given apply when the machine is on a firm and level surface.
- The load ratings are given in tons and apply 360 degrees.
- The load capacities are in observance of standards ISO 4305 Tab. 1+2 as well as the tilt angle method (4° tilt angle).
- The weight of the load handling equipment (hooks, suspension gear, grab, spreader, etc.) should be deducted from the load capacities.
- The load ratings apply to outrigger-supported working.

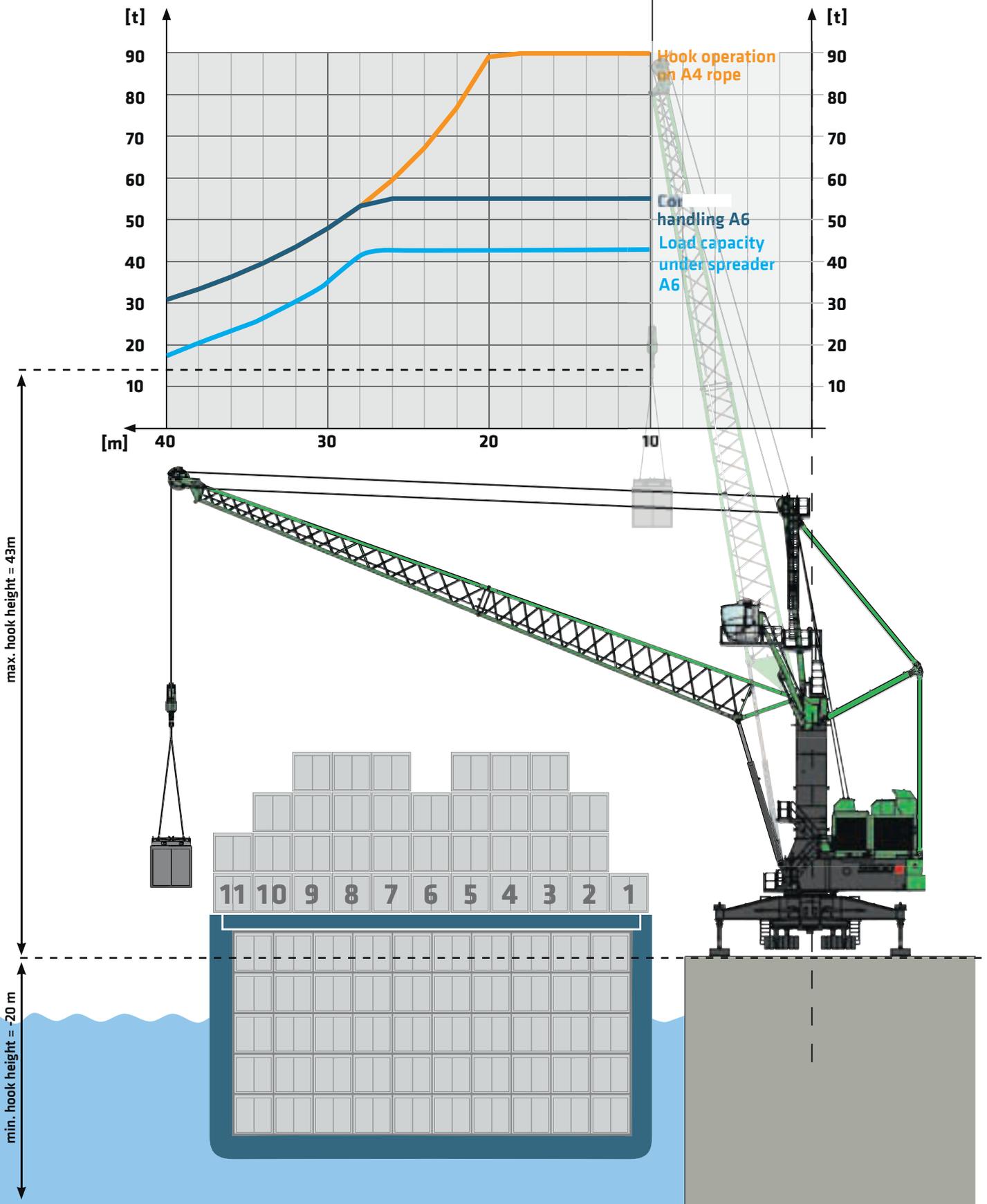
All specifications are preliminary.

Subject to technical changes.

*minus 2.5 t rotational hook



9300E Container handling



9300E High performance in container handling

Four key advantages:

- 1. Designed & made in Germany:**
Decades of experience in material handling in ports ensure high performance.
- 2. Ideal accessibility for service & maintenance**
thanks to spacious and easy-access motor Powerpack and winch housing.
- 3. Keep it simple:**
Take advantage of our “keep it simple” approach. Technology configured to simplicity and controllability ensures that you will enjoy high machine reliability and availability.
- 4. Stay flexible:**
High-performance 90-ton rotational hook enables the flexible use of bulk cargo grabs or semi/fully automatic spreaders.

Classification / % tipping load	Hook operation Load capacity on rope*	Container handling load capacity on rope*	Load capacity under fully automatic 40' spreader*
	A4 / 75%	A6 / 75%	A6 / 75%
Radius [m]	[t]	[t]	[t]
10.0	90.0	55.0	42.0
11.0	90.0	55.0	42.0
12.0	90.0	55.0	42.0
13.0	90.0	55.0	42.0
14.0	90.0	55.0	42.0
15.0	90.0	55.0	42.0
16.0	90.0	55.0	42.0
17.0	90.0	55.0	42.0
18.0	90.0	55.0	42.0
19.0	90.0	55.0	42.0
20.0	89.2	55.0	42.0
22.0	76.9	55.0	42.0
24.0	67.3	55.0	42.0
26.0	59.6	55.0	42.0
28.0	53.2	53.2	40.2
30.0	48.0	48.0	35.0
32.0	43.5	43.5	30.5
34.0	39.6	39.6	26.6
36.0	36.3	36.3	23.3
38.0	33.4	33.4	20.4
40.0	30.9	30.9	17.9

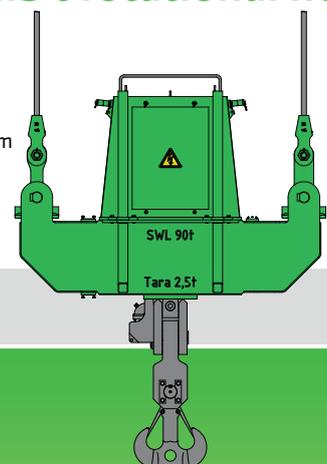
Rotational hook weight 2.5 t
Fully automatic 40' spreader weight approx. 10.5 t (max. payload: 42 t)

Note:

- The specified load ratings given apply when the machine is on a firm and level surface.
- The load ratings are given in tons and apply 360 degrees.
- The load capacities are in observance of standards ISO 4305 Tab. 1+2 as well as the tilt angle method (4° tilt angle)
- The weight of the load handling equipment (hooks, suspension gear, grab, 40' spreader, etc.) should be deducted from the load capacities.
- The load ratings apply to outrigger-supported working.

All specifications are preliminary.

*minus 2.5 t rotational hook



9300E Technical data, equipment

DRIVE - POWER PACK DATA

Diesel-hydraulic: <i>alternatively</i>	Stage V: 563 kW at 1800 rpm	Stage II: 570 kW at 1800 rpm
Electro-hydraulic:	615 kW	

CAB PORTCAB

Cab type:	Large capacity port cab
Cab elevation:	Skylift 1100 continuous cab elevation for safe and comfortable movement up to work level
Viewing height:	21.2 m

UNDERCARRIAGE

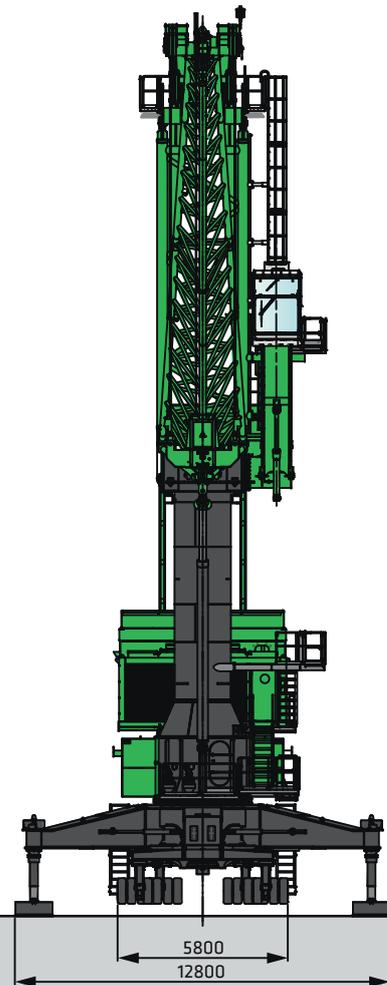
Design:	Stable star-shaped undercarriage with 14 axles, of which 5 are powered
Load balance:	Automatic via corresponding level regulation for uniform ground loading
Travel speed:	0 - 5 km/h
Outriggers:	4 outrigger pads with standard dimensions L 5.5 m x W 1.3 m = 7.15 m ²
Outrigger area:	11.5 m x 11.5 m
Overall width:	12.8 m (fully stabilized)
Overall length:	17.0 m (fully stabilized)

BOOM

Design:	stable lattice boom - 41 m in length
Boom pivot point:	at a height of 16.2 m
Overall height:	Base machine with A-frame: 29.1 m

OPERATING WEIGHT

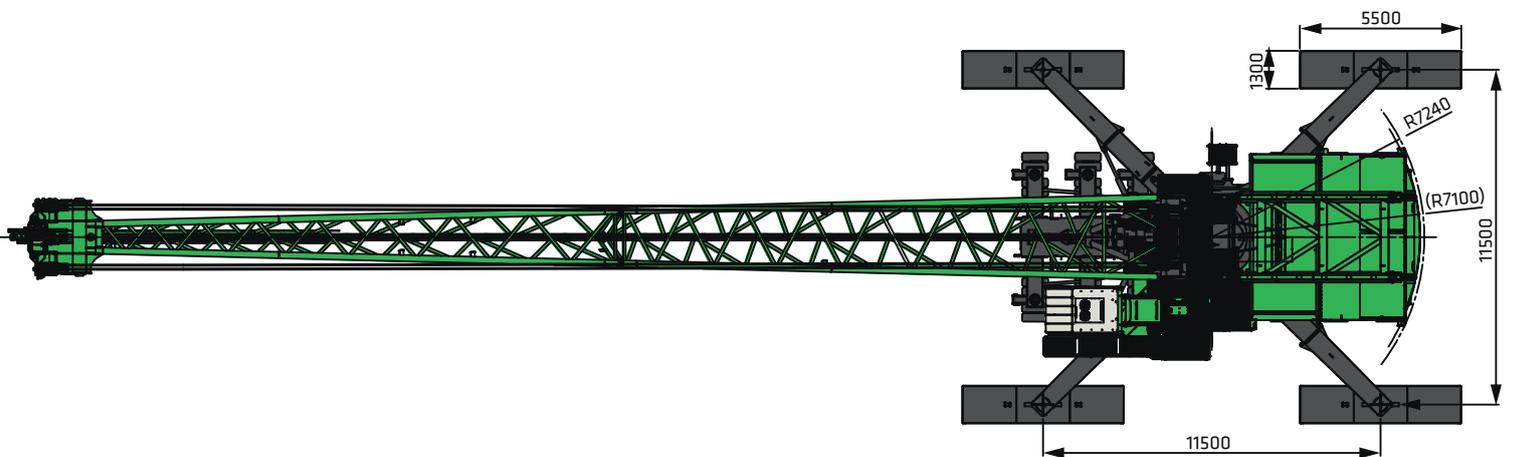
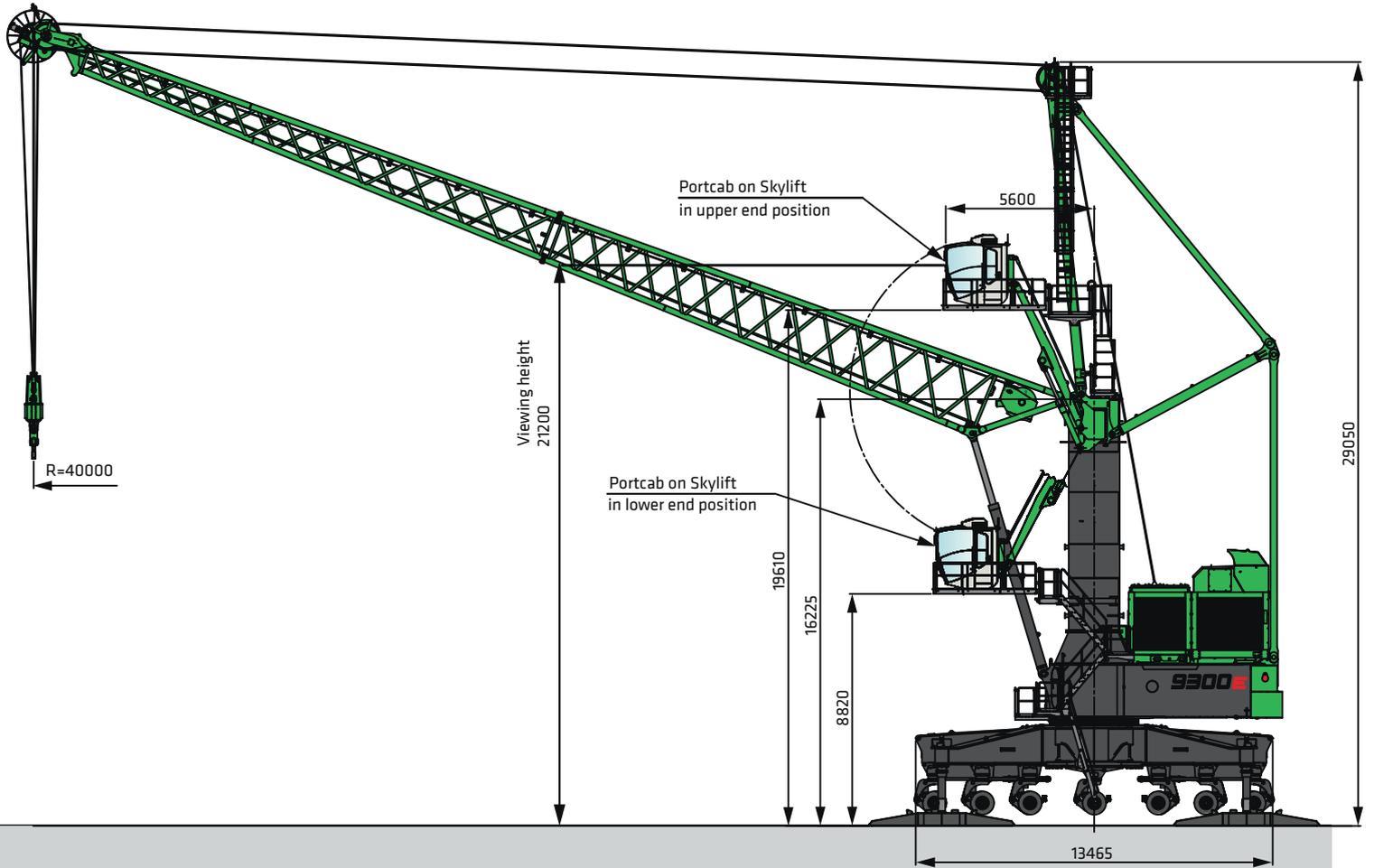
Mass:	approx. 290 t Base machine incl. lattice boom, ropes, counterweight, outrigger pads, without load handling equipment
Note:	Operating weight varies by model and equipment.



UPPERCARRIAGE

Rotor:	Slewing speed 0 - 1.6 min ⁻¹
Hoist 2-cable machine:	1x double winch 90 t
Tensile force:	2 x 450 kN
Cable diameter:	42 mm
Cable speed:	0 - 100 m/min
Hoist 4-cable machine:	2x double winch, 45 t each
Tensile force:	2 x 225 kN (2x)
Cable diameter:	36 mm
Cable speed:	0 - 100 m/min

9300E Dimensions



SENNEBOGEN power packs

Easy maintenance, ideal accessibility

- Easy maintenance
- Ideal accessibility to all machine components
- Optimized ventilation and filter system, ideal for bulk cargo handling
- No over-engineering
- Clearly arranged control cabinet
- Foldable maintenance cover for more extensive service work
- Central hydraulic measuring points

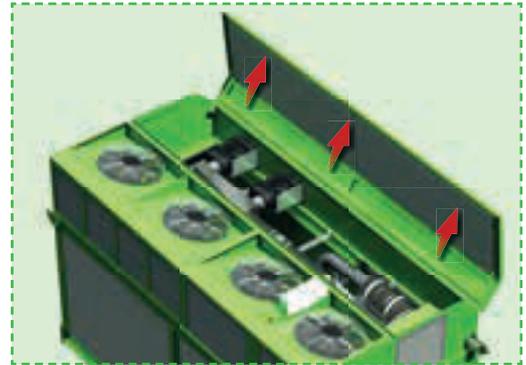


Image shows maintenance cover

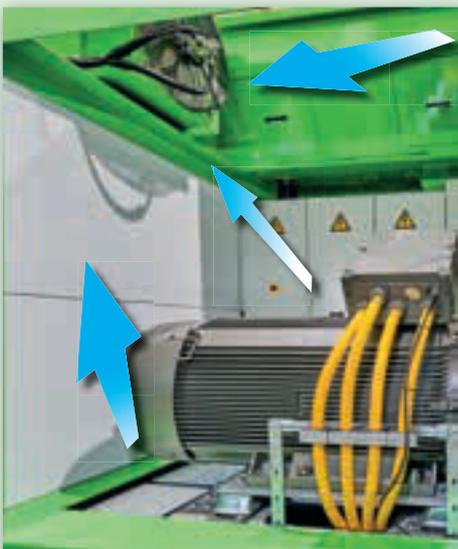
Electrical system



Diesel



- | | |
|-----------------------|------------------------------|
| 1 Oil cooler | 5 Electric motor |
| 2 Fresh air intake | 6 Air conditioning system |
| 3 Diesel motor | 7 Control cabinet |
| 4 Diesel motor cooler | 8 Central lubrication system |



Fresh air intake via base filter

- Clean interior space even under adverse conditions



Central connection point

- for all hydraulic functions



Central lubrication system

- Easy lubricant inspection
- Easily accessible



SENNEBOGEN HydroClean*

- Optimal protection of hydraulic components thanks to 3 µm micro-filter
- Cleaner hydraulic oil, extended oil service life



Central measuring points

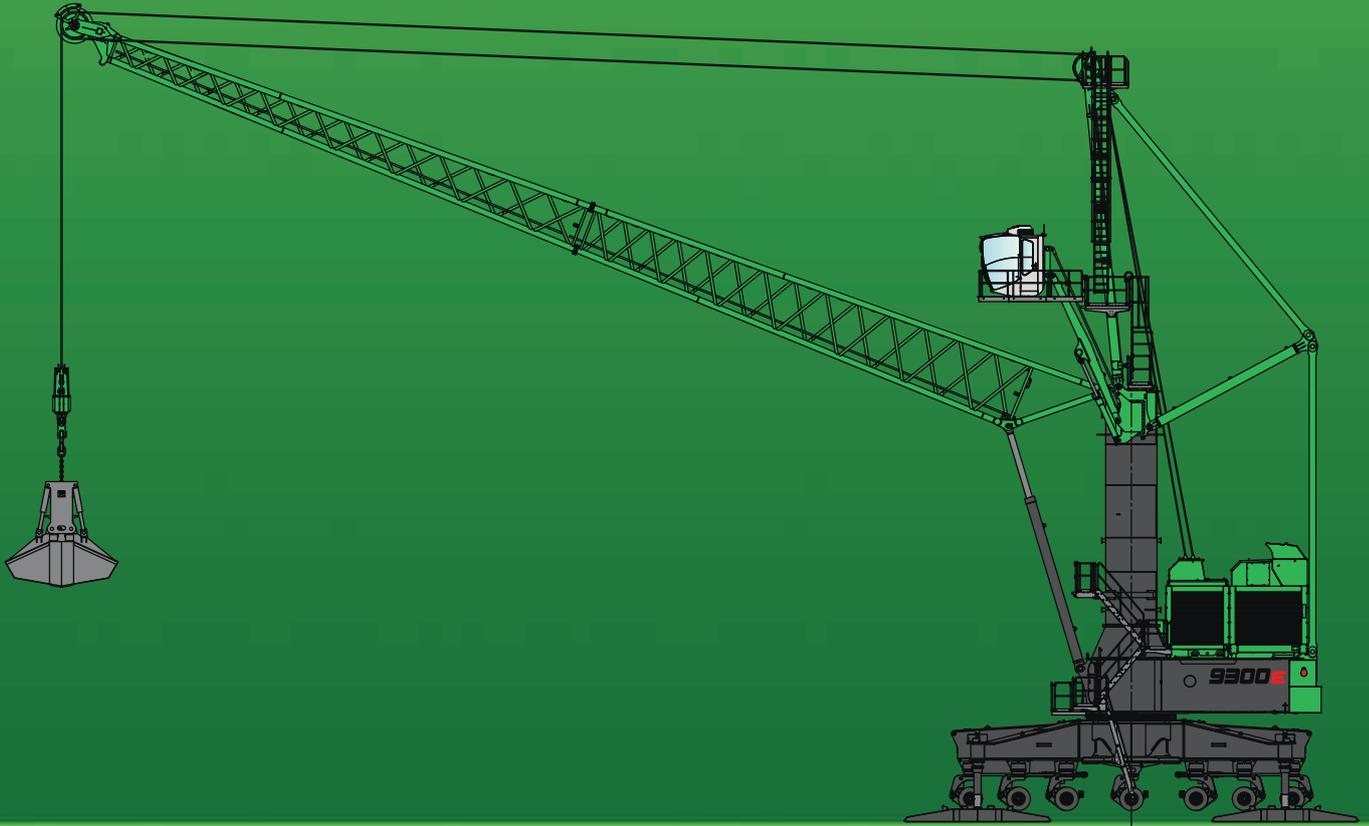
- Easily accessible
- Quick inspection of the entire hydraulic system



Clear labeling

- All parts labeled with a unique part number
- Easy and reliable spare parts ordering

9300E



This catalog describes machine models, scopes of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik. Machine illustrations can contain optional equipment and supplemental equipment. Actual equipment may vary in a tolerance range depending on the country to which the machines are delivered, especially in regard to standard and optional equipment

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