

 **840 R**

# SENEBOGEN



**227** kW (Stage IIIa)



**231** kW (Stage V)

**200** kW (Electro)

**57 - 67** t



**20** m



**MAXCAB**

# 840E

Crawler material handler

Stage V

# 840E Advanced. The E-Series



1962: Rope-driven S833 with elevated operator cab

## What makes up the E-Series

- More than 65 years of experience in designing and constructing hydraulic material handling machines
- Uncompromisingly high performance in all areas: Focus on material handling
- Technology that can be mastered: High-quality components without over-engineering
- Long product service life and high value retention

## Your top benefits

1

### Green Efficiency

Safe fuel - reduce operating costs  
Work quietly - protect operator and environment



2

### Peak performance

Durable mechanical systems - stressed parts optimized  
High speeds - high load capacities

3

### Maximum usability

Comfortable Maxcab operator cab - relaxed work  
SENCON - work program selection made easy



4

### Maximum safety

Safe entry and exit - no-slip steps  
State-of-the-art camera - entire work area in view

5

### Maintenance and service made easy

SENNEBOGEN Control System SENCON - easy fault diagnosis  
Easy Maintenance - clear labeling

6

### Consultation and support in your area

3 production sites - 2 subsidiaries  
more than 150 sales partners - worldwide and also in your area





Subject to technical changes. Further options available upon request.

# 840E The E-Series. At a glance.



## Four ways to save fuel

- Up to 20% savings: working in Eco Mode with reduced engine speed
- Idle automation reduces speed to 40% of operating speed
- Stop automation switches the engine off when not needed
- Optimized settings of engine and hydraulics reduces fuel consumption



## Quiet operation 3

- Consistently quiet operation thanks to decoupled engine mounts and soundproofing in the doors
- Soundpower level according to 2000/14/EC up to 2 dB lower than required

## High-capacity cooling 4

- Constant, reliable performance thanks to large-dimensioned and robust fans and coolers
- Water and oil coolers with top-notch efficiency thanks to axial-piston pump and motor control and ondemand thermostatic control
- Fan reversal for cleaning in series



## Maximum safety

- Non-slip work surfaces
- Hand rails (optional) **1**
- 2 cameras to the right and to the rear
- Step grid with railing, sliding door **2**

## Powerful hydraulic system **5**

- Strong pumps with power reserves
- Top efficiency thanks to large-dimensioned hydraulic valves and lines
- Extra-long change intervals of 4,000 operating hours through initial fill-up with special oil with extended service life when using SENNEBOGEN HydroClean\*



The premium cab.

## Panoramic view

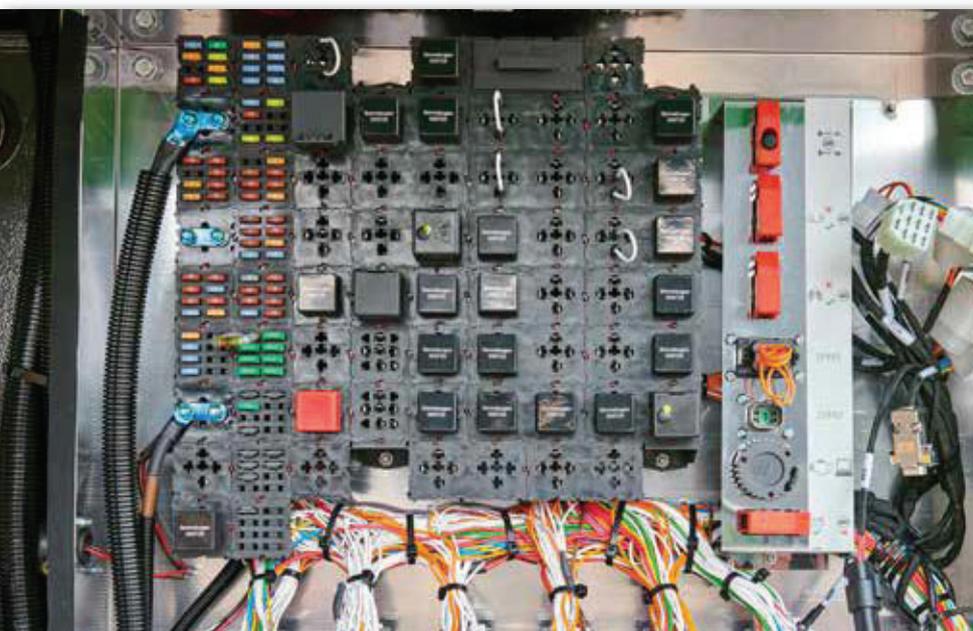
### Features

- optimum cab climate with automatic air conditioning system, partial tinted glass
- pleasant and equal temperature dispersion by means of 9 nozzles
- panoramic view
- climatic comfort seat with air suspension and air conditioning\*
- very quiet through optimized noise insulation
- Highest safety & comfort with sliding door, wide door opening
- ergonomically arranged operating controls for fatigue-free and relaxed working
- 12 V, 24 V, and USB charging sockets hands-free telephone preparation, document box
- various options: electric cooler behind's, protective covers, seat air conditioning

### Our SENNEBOGEN joysticks

- consoles and ergonomic joysticks that move with the seat
- pleasant grip through ergonomic design
- precise control of all movements through direct and sensitive function activation
- quick access to all operating controls through optimized design of all push-buttons and switches

# **B40E** Maintenance and service made easy.



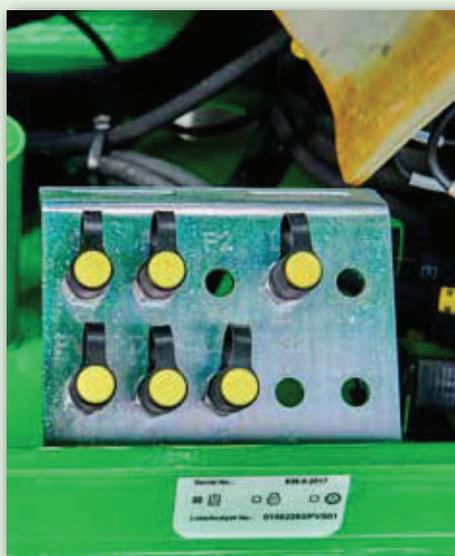
## **Optimized for maintenance**

- Fast and easy diagnosis thanks to straightforward and clearly labeled electrical distributor
- Easy access to all service points on the machine
- Automatic central lubrication for equipment and slewing gear



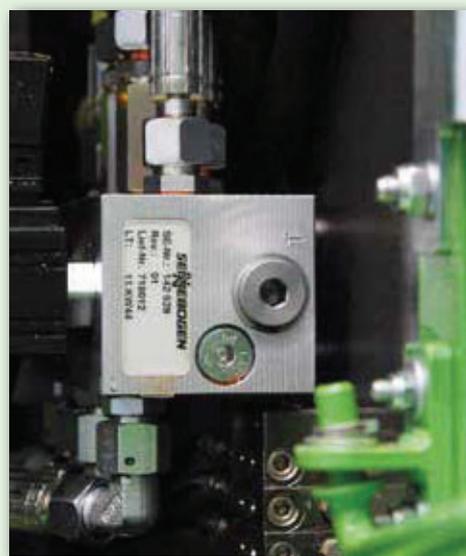
## **SENNEBOGEN Hydro Clean\***

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



## **Central measuring points**

- Easily accessible
- Quickly inspect entire hydraulic system



## **Clear labeling**

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

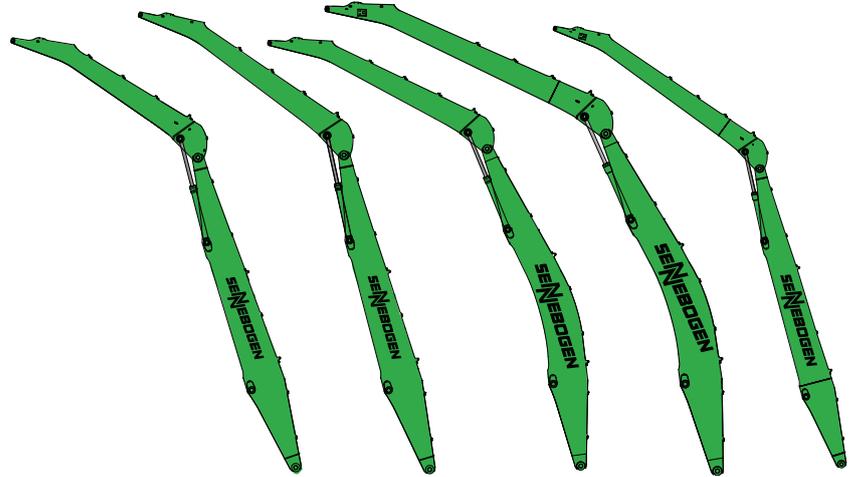
\* Option

# 840E Modular structure - versatile solutions

## Attachments



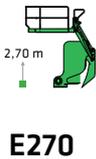
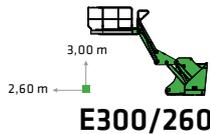
## Equipment (additional equipment on request)



## Cabs

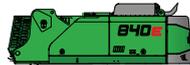


### Cab elevation



K17      K18      B18      B19      K20

## Uppercarriage



Diesel-hydraulic drive



Electro-hydraulic drive

### Options

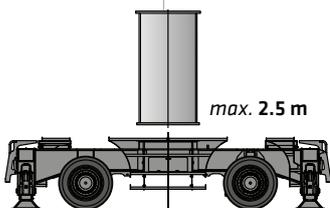


Motorized cable reel

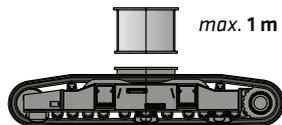


Transformer

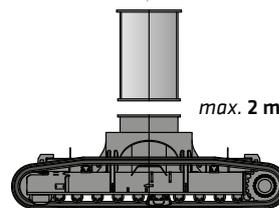
## Variants undercarriage



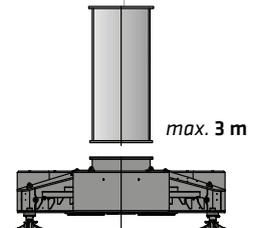
Mobil E\*  
MP42



Crawler  
R43/400



Crawler Special  
R44/400



4-point-pedestal  
ST48/400

# 840E Advantages at a glance

Reliable work through  
robust and FEM-  
optimized equipment

Better illumination of  
the work area through  
powerful LED headlights\*

High safe working loads  
even at maximum extension,  
due to massive cylinders

Safe entry and exit  
thanks to railings\*,  
grip handles and  
non-slip steps

Sliding door for convenient  
entry and exit, step grid  
with railing

Ideal overview and safe  
working height, thanks  
to stable cab elevation

Robust side  
cover of recyclable  
steel sheet

Robust slewing  
gear (2x) for fast  
fast work cycles  
and high-perfor-  
mance material  
handling

\* Option

# 840E Technical data - equipment

## MACHINE TYPE

Model (type) **840**

## MOTOR

Power	<b>Stage V:</b> Rated Power: 231 kW at 2100 rpm 237 kW at 2000 rpm / 242 kW at 1800 rpm <b>Stage IIIa:</b> Rated Power: 227 kW at 2000 rpm 254 kW at 1800 rpm
Model	<b>Cummins L9</b> Direct injection, turbo charged, charge air cooling, reduced emissions, ECO mode, idle automation, stop automation, fuel pre-warming
Cooling	water-cooled, direction of rotation changeover of the cooler fan
Diesel filter	with water separator and heater
Air filter	Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator
Fuel tank	<b>625 l</b>
DEF tank	<b>75 l</b>
Electr. system	<b>24 V</b>
Batteries	<b>2 x 150 Ah</b> , battery disconnect switch
Options	<ul style="list-style-type: none"> <li>■ Engine block pre-warming at temperatures under -20°C</li> <li>■ Electric fuel pump</li> </ul>

## UPPERCARRIAGE

Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearing arrangement  Extremely service-friendly concept, engine installed in the longitudinal direction
Central lubrication	Autom. central lubrication for equipment and slewing gear raceway
Electrical	Central electrical distributor, battery disconnect switch
Cooling system	3-circuit cooling system with high cooling output, thermostatically regulated fan drive for oil cooler and water cooler, fan reversal for cleaning
Options	<ul style="list-style-type: none"> <li>■ Slewing gear brake via foot pedal</li> <li>■ Hand rail at the upper structure</li> <li>■ LED light packages</li> <li>■ Fire extinguisher</li> <li>■ Sea climate resistant coating</li> <li>■ Electrical hydraulic tank pre-warming at temperatures under -20°</li> </ul>

## Options

- Low temperature packages
- Hydraulically-driven magnetic generator 20 kW
- Telematic system SENtrack DS

## HYDRAULIC SYSTEM

Load sensing / LUDV hydraulic system, hydraulic, pilot-controlled work functions, load limit sensing control	
Pump type	Variable-displacement piston pump in swashplate design, load pressure-independent flow distribution for simultaneous, independent control of work functions
Pump control	Zero-stroke control, on-demand flow-control - the pumps only pump as much oil as will actually be used, pressure purging, load limit sensing control
Delivery rate	<b>maximum 740 l/min</b>
Operating pressure	<b>to 350 bar</b>
Filtration	High-performance filtration with long-term change interval SENNEBOGEN HydroClean micro-filter system water separator option
Hydraulic tank	<b>500 l</b>
Control system	Proportional, precision hydraulic activation of work movements, 2 hydraulic servo joysticks for work functions, supplemental functions via switches and foot pedals
Safety	Hydraulic circuits with safety valves, secured emergency lowering of the equipment at engine standstill, pipe fracture safety valves for lift cylinder and stick cylinder
Options	<ul style="list-style-type: none"> <li>■ Electric fuel pump for fueling without moving the machine</li> <li>■ Bio-oil filling - ecologically worthwhile</li> <li>■ Tool Control for easy attachment change</li> <li>■ Supplemental hydraulic circuit for shear attachment</li> <li>■ Load moment warning with capacity utilization indicator, e.g. for tasks in halls</li> <li>■ Overload safeguard with overload shutdown e.g. for tasks in halls</li> </ul>

## SLEWING DRIVE

Gearbox	Compact planetary gear with slant axis hydraulic motor, integrated brake valves
Parking brake	Spring-loaded disk brake
Slewing ring	Strong ball race slewing ring, sealed
Slewing speed	0-8 RPM, stepless

# 840E Technical data - equipment

 <b>CAB</b> 	
Cab type	Hydraulically elevating cab E270
Cab equipment	Sliding door, excellent ergonomics, climate automation, seat heater, air-suspension comfort seat, fresh air filter / circulating air filter, joystick steering, 12 V / 24 V connections, SENCON
Options	<ul style="list-style-type: none"> <li>■ active seat air conditioning</li> <li>■ Auxiliary heating system with timer</li> <li>■ Cabs with active carbon filter</li> <li>■ Bullet proof windshield</li> <li>■ Bullet proof skylight</li> <li>■ Safety side window and rear window</li> <li>■ Sun protection for skylight and windscreen</li> <li>■ Protective roof grating</li> <li>■ FOPS protective roof grating</li> <li>■ Protective front grating</li> <li>■ Radio with speakers</li> <li>■ Maxcab industrial cab with undivided armored glass windshield</li> <li>■ electrical cooling box</li> </ul>

 <b>UNDERCARRIAGE</b>	
Design	Wide-gauge crawler undercarriage, type R43/400 with 4 m track width and B7 traveling gear in stable, torsionally rigid box construction
Drive	Hydraulic travel drive, integrated in the traveling gear frame for each traveling gear side through an axial piston motor via compact planetary gear.
Parking brake	Spring-loaded, hydraulically ventilated disk brakes. Hydraulic brake valves protect the drive engines when moving downhill.
Traveling gear	B7 crawler track (58 links) with 700 mm triple-growser track shoes, canted
Speed	<b>0 - 2.3 km/h</b>
Options	<ul style="list-style-type: none"> <li>■ R44-400 crawler undercarriage</li> <li>■ Maintenance-free B7 crawler track with 700 mm triple grouser track shoes</li> <li>■ Maintenance-free B7 crawler track with 800 mm flat track shoes</li> </ul>

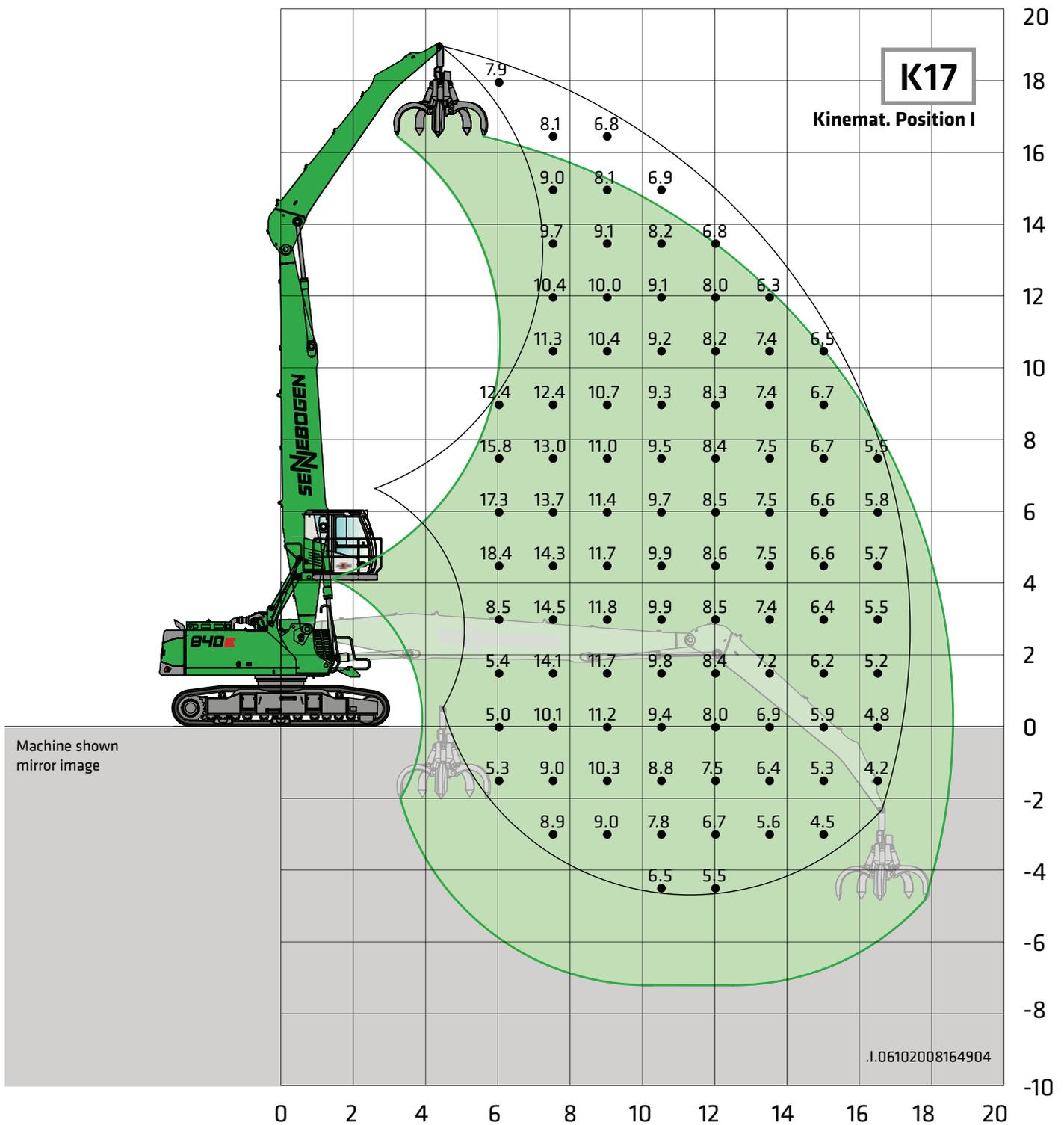
 <b>EQUIPMENT</b>	
Design	Decades of experience, state-of-the-art computer simulation, highest level stability, longest service life, large-dimensioned bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the grapple connections - open/closed/rotate
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points
Options	<ul style="list-style-type: none"> <li>■ Ball valves on the hydraulic lines grab open, closed, rotate</li> <li>■ Kinematic position II for greater working depth</li> <li>■ Sea climate resistant coating</li> <li>■ Maritime coating of all cylinders, nickel-plated and chrome-plated</li> <li>■ Float position for equipment</li> <li>■ Lift limitation / stick limitation adjustable for the stop settings, for example in the hall</li> </ul>

 <b>ELECTRIC DRIVE</b> 	
Option	<ul style="list-style-type: none"> <li>■ Power: <b>200 kW, 400 V, 50 Hz</b> Total connected load 340 kVA, machine-provided 400 A fuse (alternatively 425 A with magnet system) for 400 V – star-delta connection motor start</li> <li>■ Advantages: Lowest operating costs, quiet and virtually vibration-free work, long service life of hydraulic components</li> </ul>

 <b>OPERATING WEIGHT</b>	
Mass	<p><b>approx. 59,000 kg</b></p> <p>Basic machine 840 R with attachment K18 and 600 l orange peel grab and 700 mm 3-grouser track shoes</p>
Note	<p>The operating weight varies depending on the model.</p>



# 840E Lift capacities



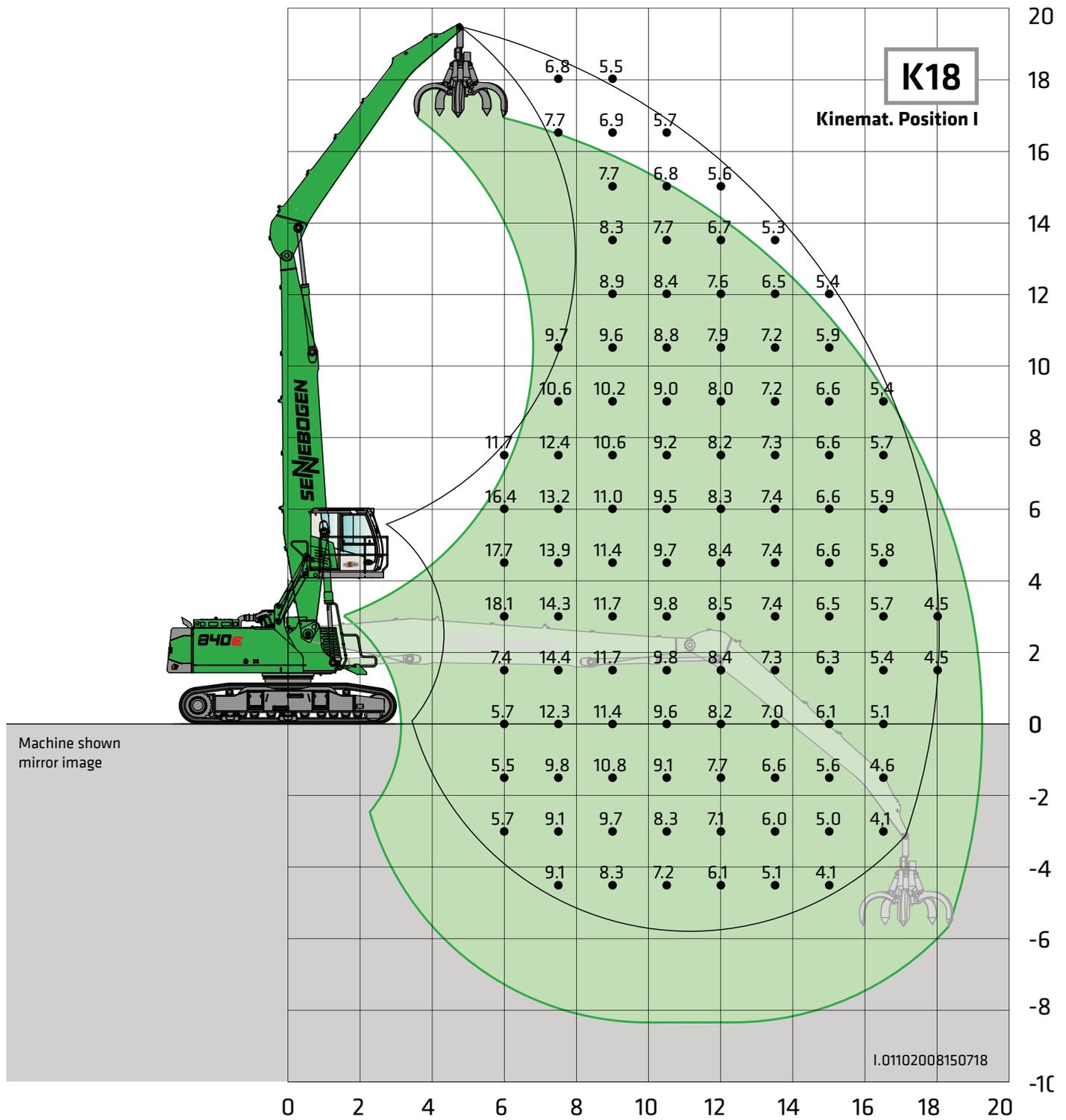
**Undercarriage** R43/400

**Compact boom** 10,6 m  
**Grab stick** 7,1 m

**Cab** Maxcab E270,  
hydraulically elevating

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, et cetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

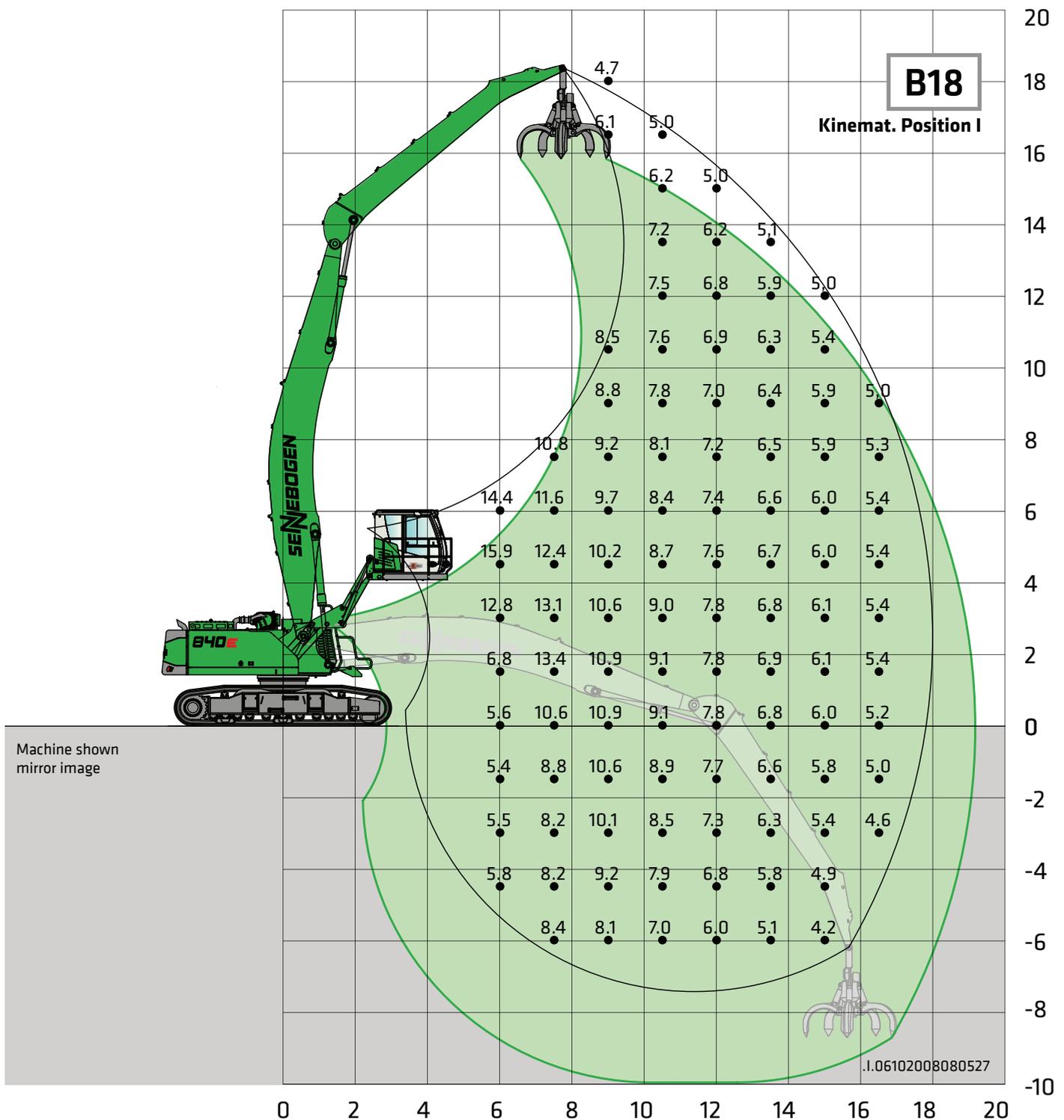
# 840E Lift capacities



<b>Undercarriage</b>	<b>R43/400</b>	<b>Compact boom</b>	<b>10,6 m</b>	<b>Cabin</b>	<b>Maxcab E270,</b>
		<b>Grab stick</b>	<b>8,0 m</b>		<b>hydraulically elevating</b>

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, et cetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

# B40E Lift capacities



Undercarriage

R43/400

Compact boom  
Grab stick

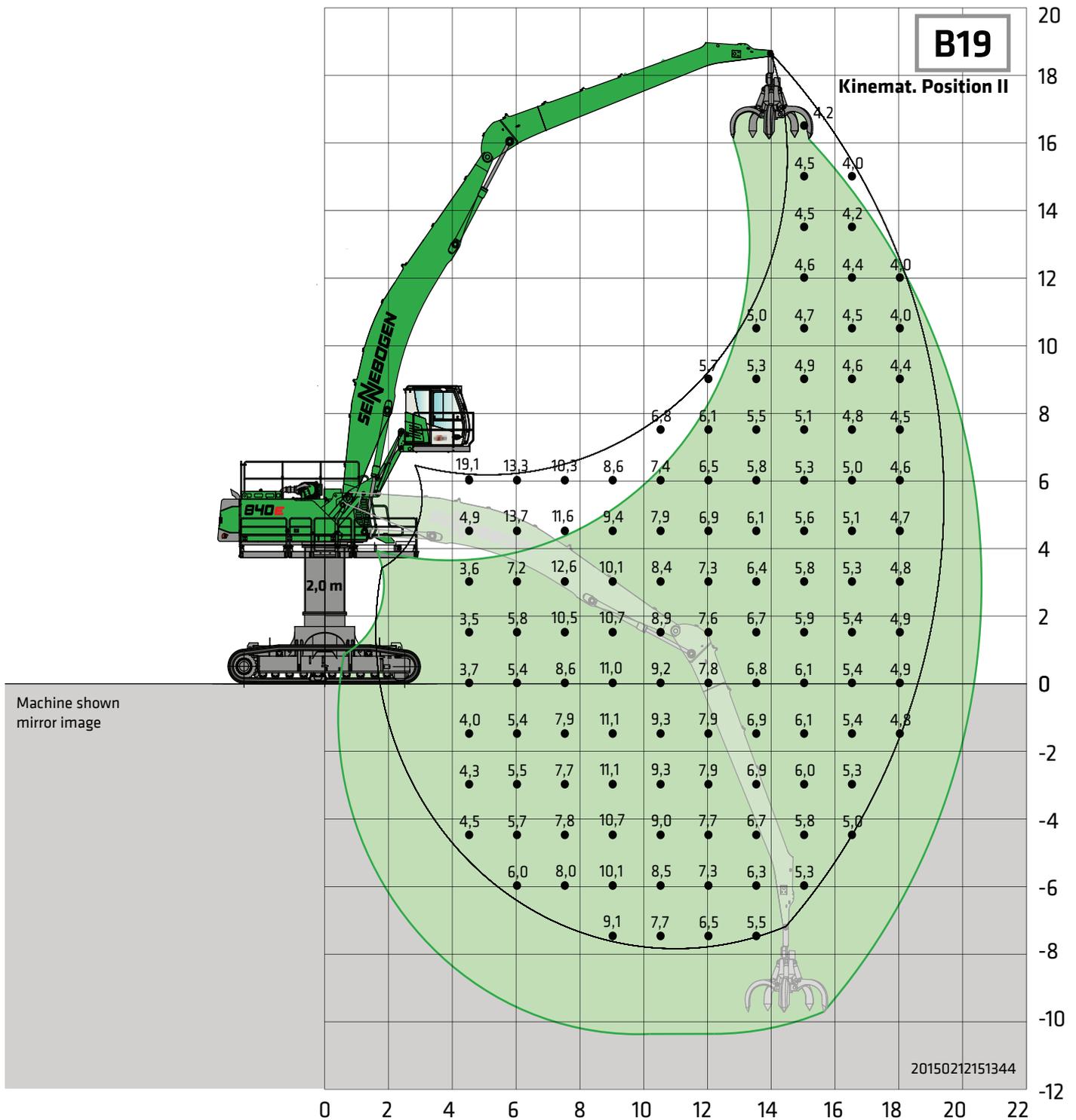
11,0 m Banana  
8,0 m

Cab

Maxcab E300/260, hydraulically  
elevating and forward moving\*

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, et cetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

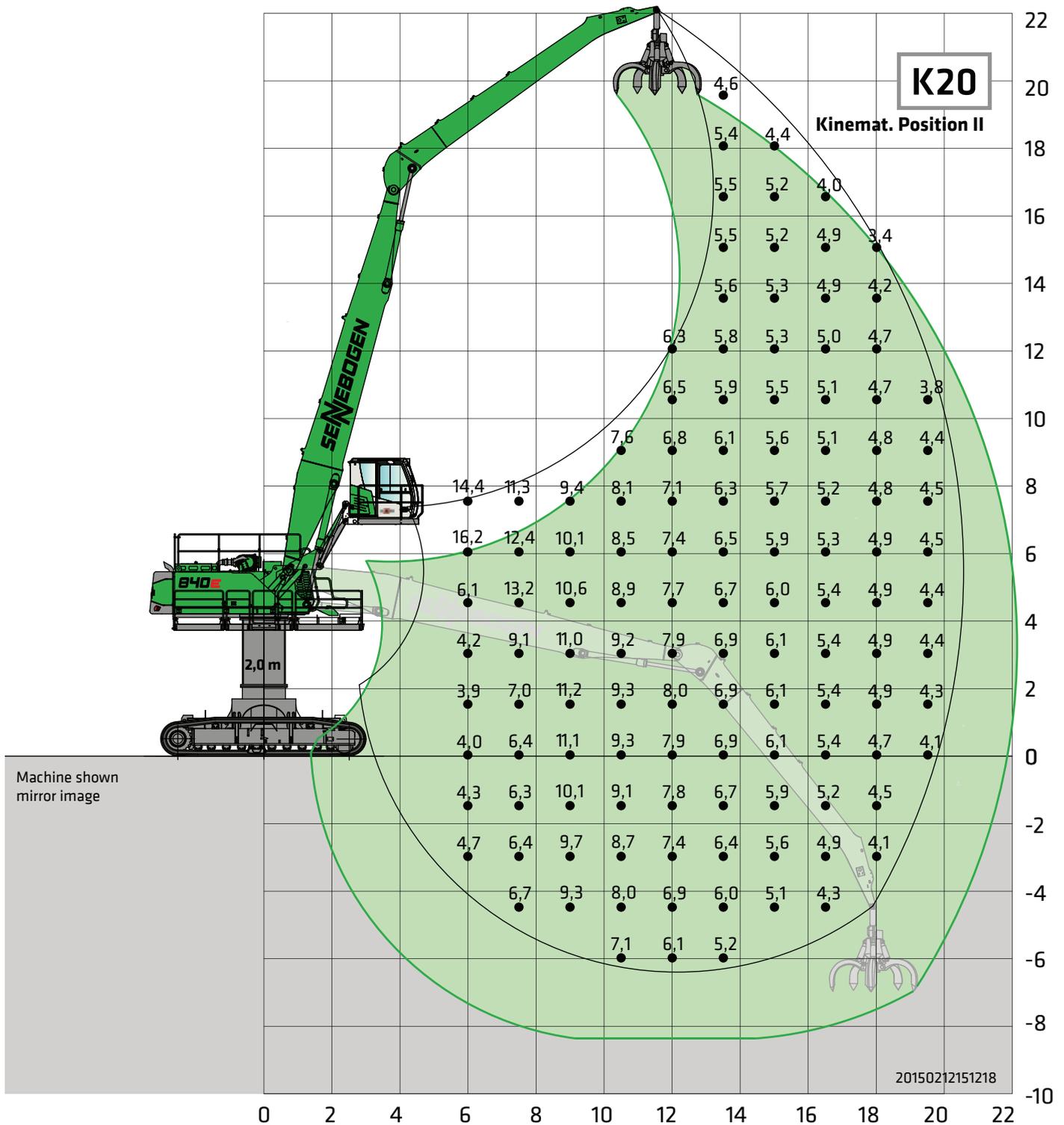
# B40E Lift capacities



<b>Undercarriage Pylon</b>	<b>R44/400 2.0 m</b>	<b>Compact boom Grab stick</b>	<b>11.0 m Banana 9,4 m</b>	<b>Cab</b>	<b>Maxcab E300/260, hydraulically elevating and forward moving*</b>
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# 840E Lift capacities



<b>Undercarriage Pylon</b>	<b>R44/400 2.0 m</b>	<b>Compact boom Grab stick</b>	<b>11,7 m 9,4 m</b>	<b>Cab</b>	<b>Maxcab E300/260, hydraulically elevating and forward moving*</b>
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# 840E Grab recommendation

## Orange peel grab SGM (4 shells)



Design / size	Grab content	Weight <sup>1</sup>		max. piled density
		Shell shape		
		HO	G	
<b>SGM</b>	<b>l</b>	<b>kg</b>	<b>kg</b>	<b>t/m<sup>3</sup></b>
400.40-4	400	1570	1720	2.0
600.40-4	600	1600	1790	
800.40-4	800	1685	1930	
1000.40-4	1000	1755	2085	
1250.40-4	1250	1850	2200	
800.50-4	800	2245	2490	
1000.50-4	1000	2345	2585	
1500.50-4	1500	2475	2830	
2000.50-4	2000	2660	3075	

## Orange peel grab SGM (5 shells)



Design / size	Grab content	Weight <sup>1</sup>		max. piled density
		Shell shape <sup>2</sup>		
		HO	G	
<b>SGM</b>	<b>l</b>	<b>kg</b>	<b>kg</b>	<b>t/m<sup>3</sup></b>
400.40	400	1820	1920	2.0
600.40	600	1910	2035	
800.40	800	1960	2140	
1000.40	1000	2040	2290	
1250.40	1250	2180	2415	
800.50	800	2420	2610	
1000.50	1000	2480	2655	
1500.50	1500	2645	2930	
2000.50	2000	2800	3160	
2500.50	2500	3130	3615	
3000.50	3000	3250	3875	
3500.50	3500	3420	4140	

## Clamshell grab SGZ



Design / size	Grab content	Weight <sup>1</sup>	max. piled density
<b>SGZ</b>	<b>l</b>	<b>kg</b>	<b>t/m<sup>3</sup></b>
1500.50	1500	1950	2.6
2000.50	2000	2200	
2500.50	2500	2300	2.0
3000.50	3000	2490	
4000.50	4000	2880	1.6

## Magnetic plates



Type series / model	Power	Deadweight	Pull-off strength	Load-bearing capacity in kg
<b>WOKO</b>	<b>kW</b>	<b>kg</b>	<b>kN</b>	<b>Bramme (safety factor 2)</b>
S-RSL 15	12.2	1950	360	18000
S-RSL 17	17.0	2500	460	23000
S-RLB 13,5	10.0	1700	300	15000
S-RLB 15	11.7	2400	380	19000
S-RLB 17	17.8	3300	640	32000
<b>Recommended magnetic generator 20 kW</b>				

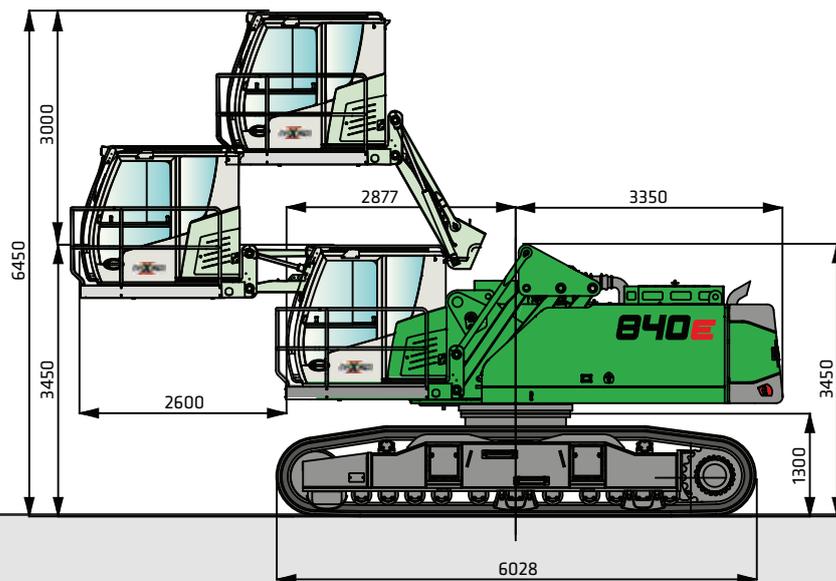
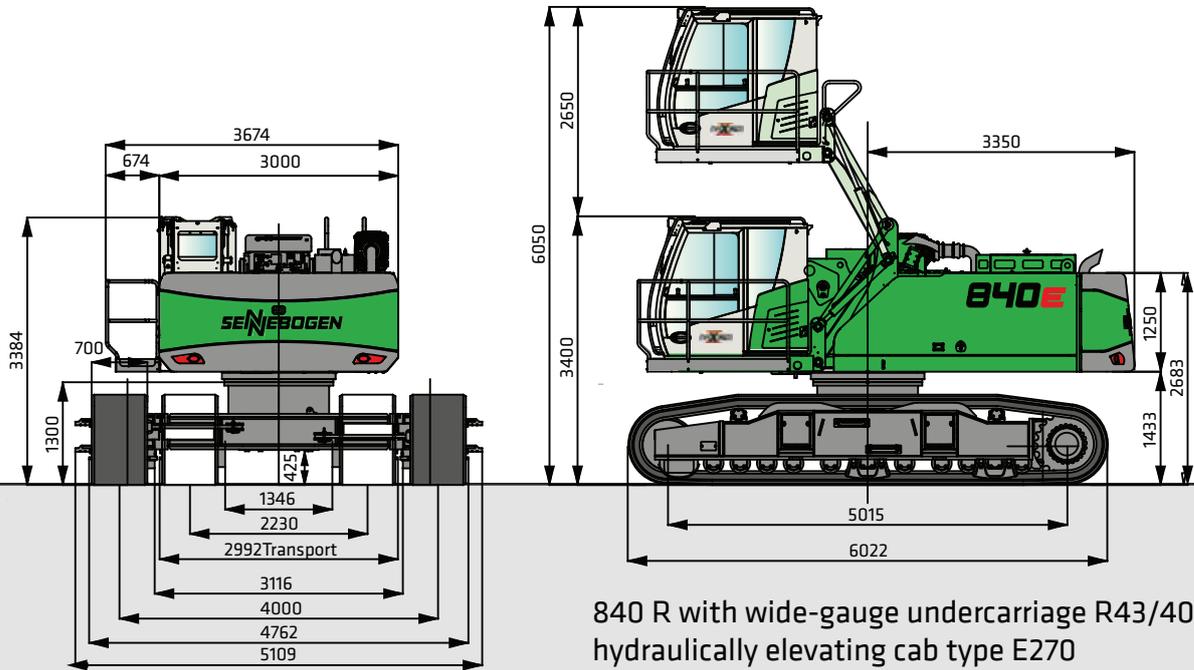
\*) On request

1) Weight information without grab suspension, stick bolts, hose system

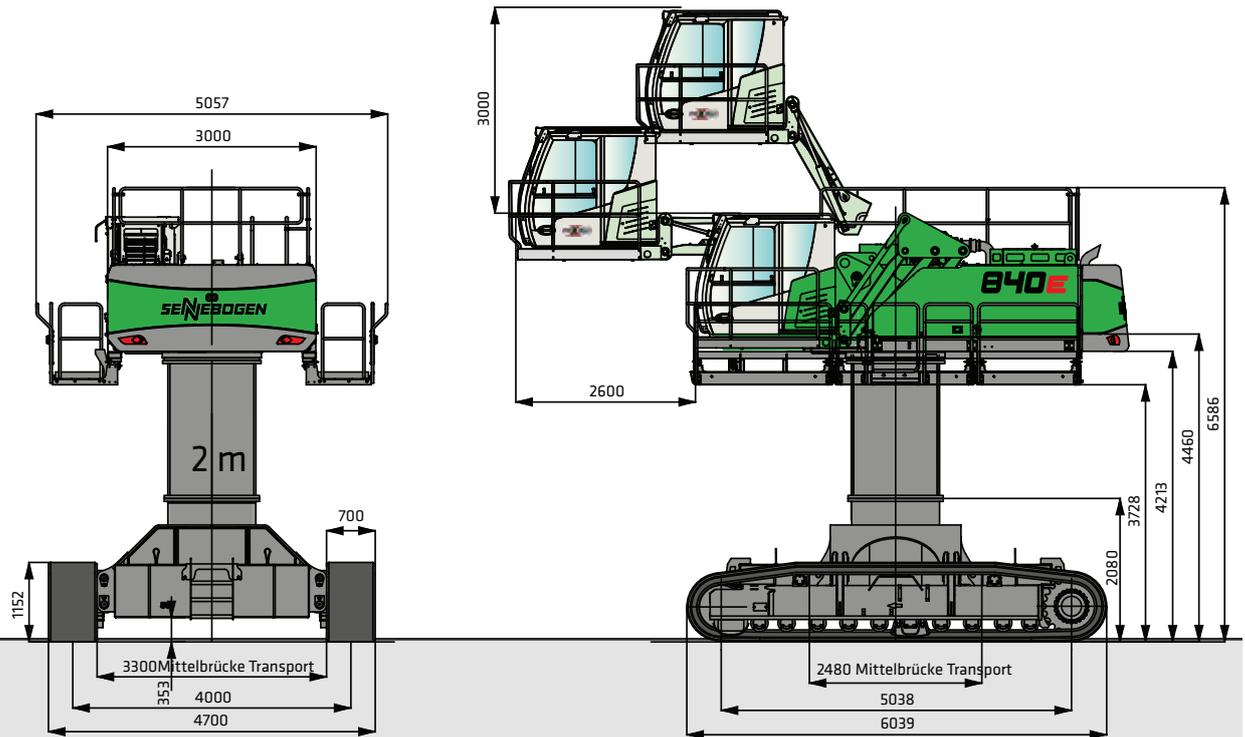
2) Half-open shells: Shell sheet steel 400 mm wide, from content 1250 l shell sheet steel 500 mm wide

# 840E Dimensions

Transport width 3000 mm with traveling gear telescoped

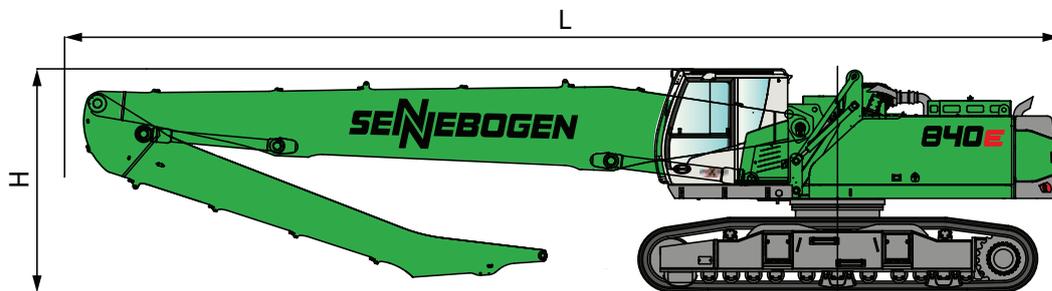


# 840E Dimensions



840 R with wide-gauge undercarriage R44/400, cab type E300/260, can be elevated and moved forward hydraulically

## Transport width 3000 mm with traveling gear removed



## Transport dimensions 840 R with undercarriage type R43/400

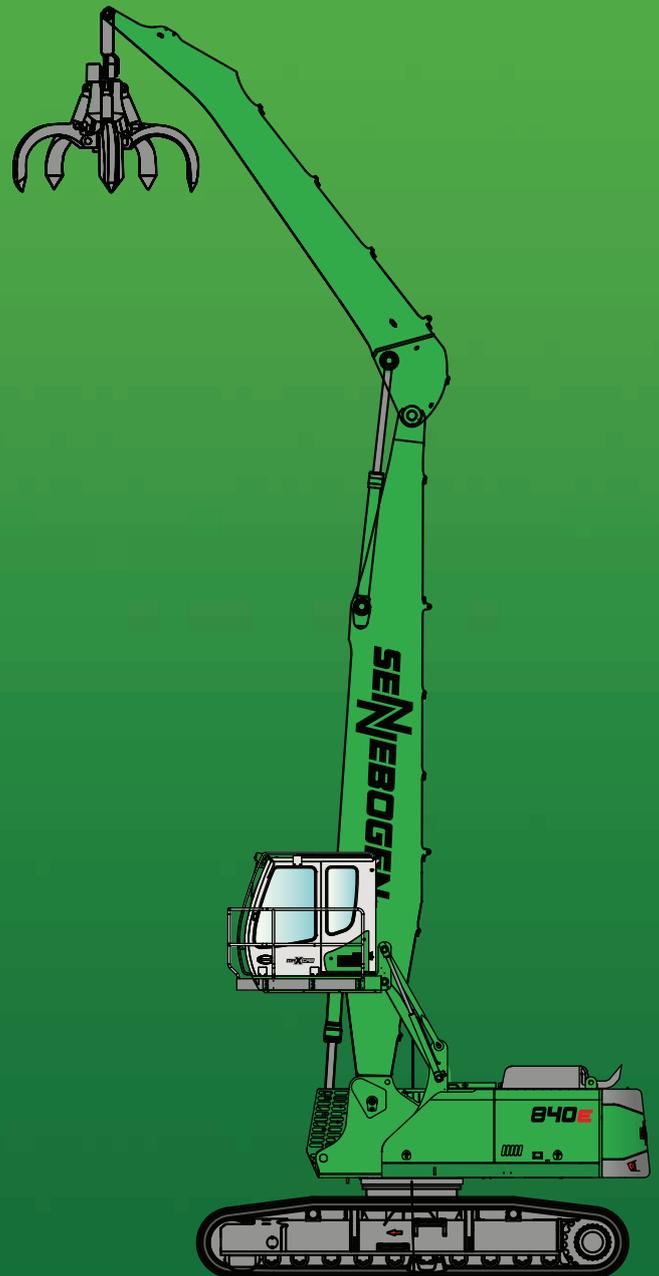
	Load boom	Grab stick	Transport length (L)	Transport height (H)
K17	10,6 m	7,1 m	15,0 m	3,40 m
K18	10,6 m	8,0 m	15,0 m	3,65 m
B18	11,0 m Banana	8,0 m	15,35 m	3,70 m
B19	11,0 m Banana	9,4 m	15,3 m	3,65 m*
K20	11,7 m	9,4 m	16,2 m	3,40 m*

\* Stick is dismantled

### Note:

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

# 840E R



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