



**231 kW** (Stage V)

**227 kW** (Stage IIIa)

**160/200 kW** (Electro)



**45,5 t**



**19 m**



**MAX CAB**

# 835E

Mobile material handling machine

# 835E 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

Save 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

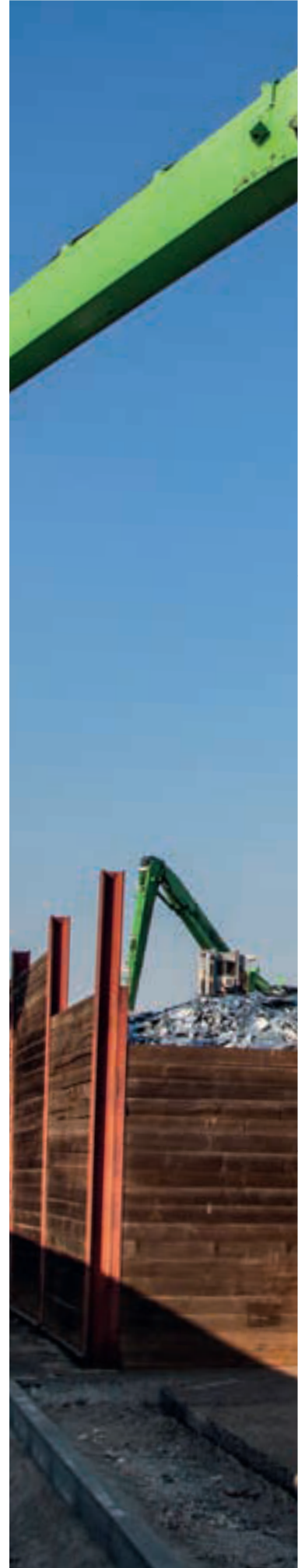
### Maintenance and service made easy

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

6

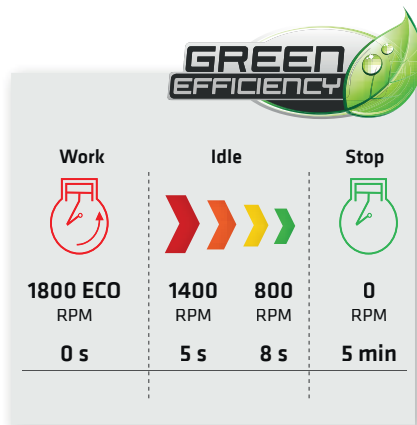
### Consultation and support in your area

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





# 835E 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 **2**

- 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 **3**

- 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

4 Subject to technical changes. Further options available upon request.



## Powerful hydraulic system **4**

- 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\*

## Maximum safety

- No-slip work surfaces
- 2 cameras to the right and rear
- Platform with railing next to cab with sliding door **5**
- Hand rails\* **1**

\* Option



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 the driver seat, 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



# **B35E** 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 raceway



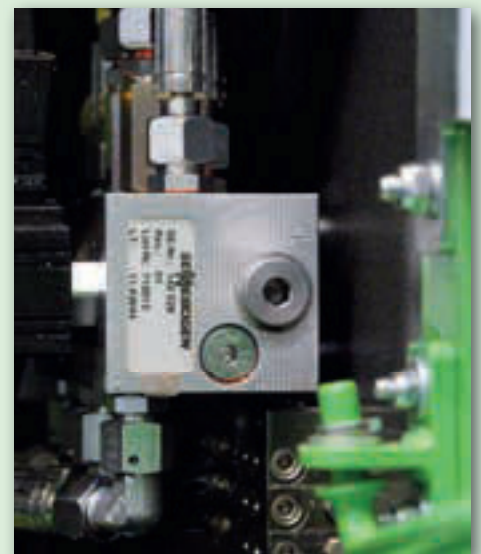
## **SENNEBOGEN Hydro Clean\***

- 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

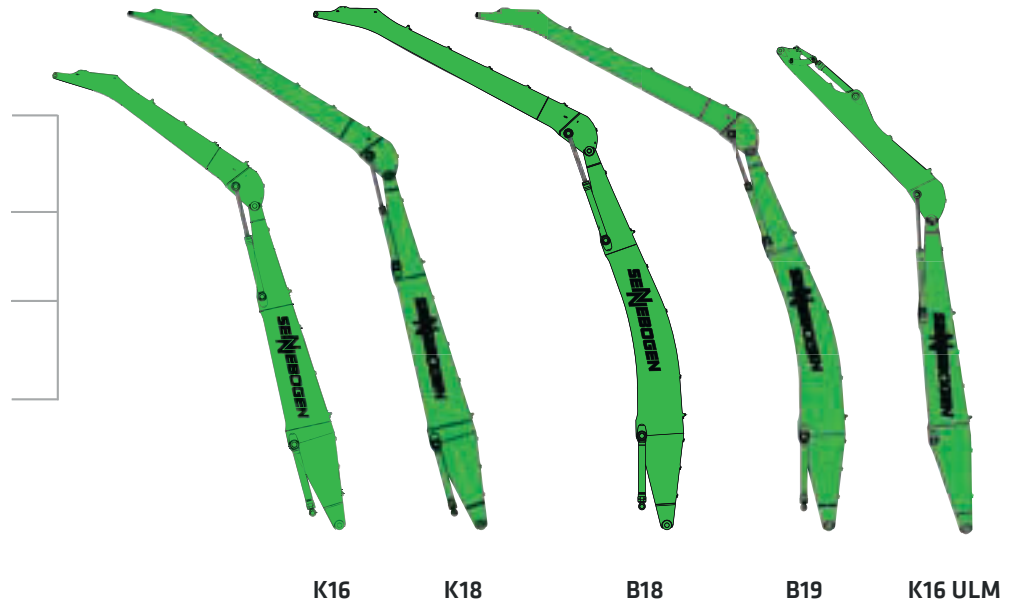
\* Option

# 835E Modular structure - versatile solutions

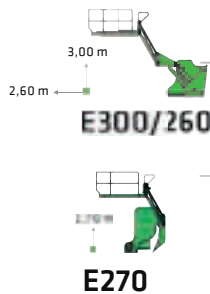
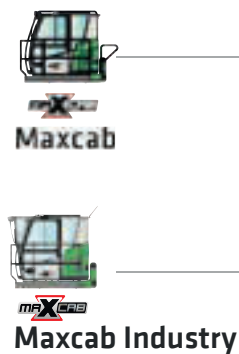
## Attachments

-  Orange peel grab
-  Clamshell grab
-  Magnet plate
-  Scrap metal shears

## Equipment (additional equipment on request)





## Cab elevation





## Uppercarriage



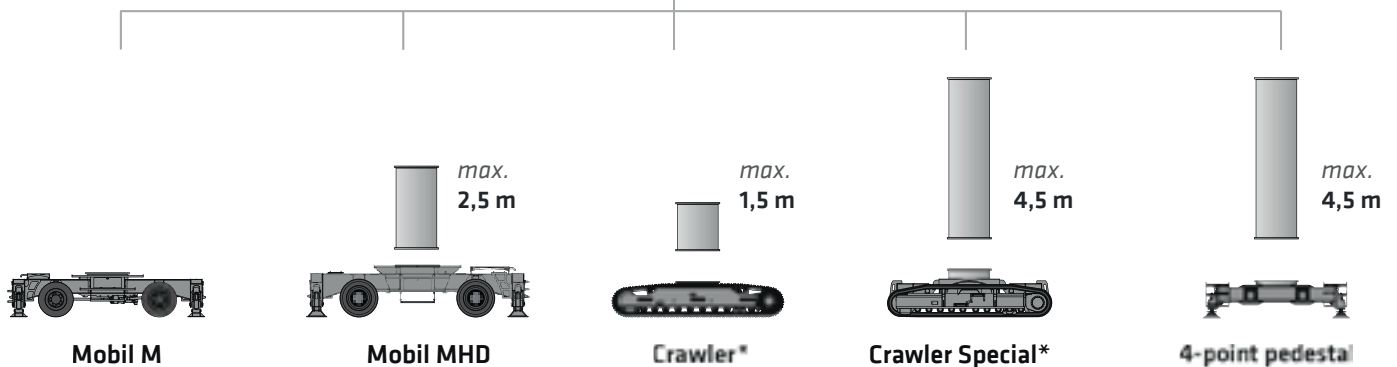
K16    K18    B18    B19    K16 ULM

-  Diesel-hydraulic drive
-  Electro-hydraulic drive

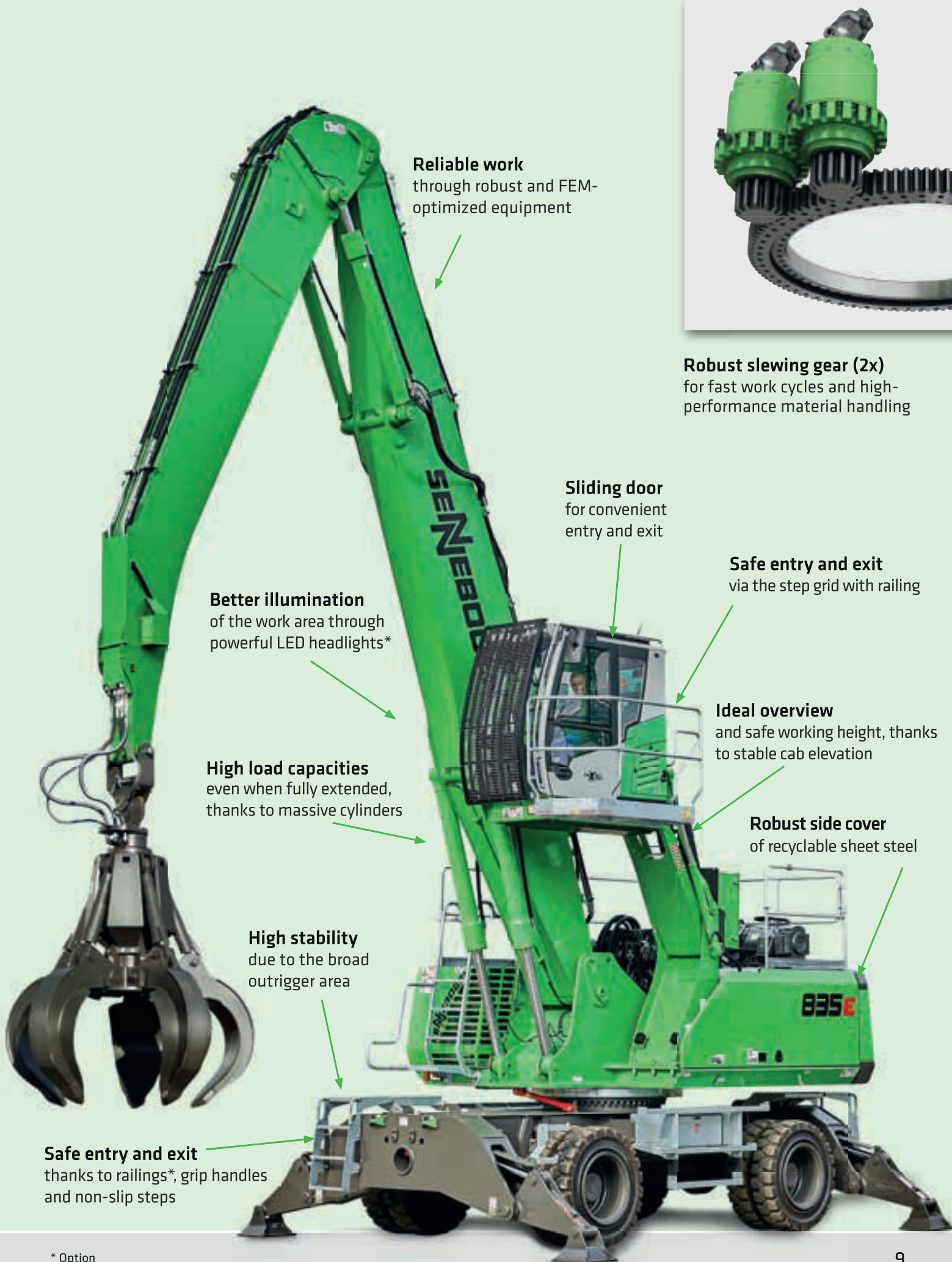
## Options

-  Motorized cable reel
-  Transformer

## Variants - undercarriage







**Reliable work**  
through robust and FEM-  
optimized equipment

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

**Sliding door**  
for convenient  
entry and exit

**Safe entry and exit**  
via the step grid with railing

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

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

**High load capacities**  
even when fully extended,  
thanks to massive cylinders

**Robust side cover**  
of recyclable sheet steel

**High stability**  
due to the broad  
outrigger area

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

\* Option

# 835E Technical data, equipment

## MACHINE TYPE

Model (Type) **835**

## ENGINE

Power **Stage V:**  
Rated power: 231 kW at 2100 rpm  
237 kW at 2000 rpm / 242 kW at 1800 rpm

**Stage IIIa:**  
Rated power: 227 kW at 2000 rpm  
254 kW at 1800 rpm

Model **Cummins L9**  
Direct injection, turbo charged, charge air cooler, 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 **625 l**

DEF tank **75 l**

Electr. system **24 V**

Batteries **2 x 150 Ah**, battery disconnect switch

Options

- Engine block pre-warming at temperatures under -20°C
- Electric fuel pump

## 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 Automatic central lubrication for equipment and slewing ring raceway

Electrical system 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

- Slewing gear brake via foot pedal
- Hand rail at the upper structure for additional safety
- LED lighting packages
- Fire extinguisher
- Sea climate resistant coating
- Electric heater for hydraulic tank low-temperature packages
- Hydraulically driven magnetic generator 15 kW / 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 **maximum 740 l/min**

Operating pressure **to 350 bar**

Filtration High-performance filtration with long-term change interval

Hydraulic tank **500 l**

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

- Bio-oil filling - ecologically worthwhile
- Tool Control for programming up to 10 tools in pressure / rate
- Supplemental hydraulic circuit for shear attachment
- Load moment warning with capacity utilization indicator
- Overload safeguard with overload shut-down
- 60 µm pressure filter for attachments
- 3 µm hydraulic micro-filter - SENNEBOGEN HydroClean

## SLEWING DRIVE


Gearbox Compact planetary gear with bent-axis hydraulic motor, integrated brake valves


Parking brake Spring-loaded disk brake


Slewing ring External gear slewing ring with 360° protection and pinion tooth lubrication


Slewing speed 0-8 RPM, stepless


# 835E Technical data, equipment

CAB 	
Cab type	Hydraulically elevating cab E270
Cab equipment	Sliding door, sliding window in the operator 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>■ Cab E300/260 can be elevated 300 cm, and moved forward 260 mm hydraulically</li> <li>■ Rigid cab elevation 1.00 m</li> <li>■ Auxiliary heating system with timer</li> <li>■ Cab active-charcoal filter inside air/outside air, ideal for waste recycling applications</li> <li>■ Steering wheel steering with adjustable steering column</li> <li>■ Armored glass windshield, additional safety</li> <li>■ Armored glass roof window, additional safety</li> <li>■ Safety side window</li> <li>■ Camera system for view under cabin</li> <li>■ Sunblind for roof window</li> <li>■ Protective roof grating</li> <li>■ FOPS protective roof grating, protection against falling objects</li> <li>■ Front protective grating</li> <li>■ Radio with speakers</li> <li>■ Enlarged industrial cab with undivided armored glass windshield</li> </ul>

EQUIPMENT 	
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/close/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, close, rotate</li> <li>■ Kinematic position II for greater working depth</li> <li>■ Sea climate resistant coating</li> <li>■ Sea climate resistant coating of all cylinders, nickel-plated and chrome-plated</li> <li>■ Float position for equipment via hoist cylinder</li> <li>■ Lift limitation / stick limitation adjustable for the stop settings, for example in the hall</li> </ul>

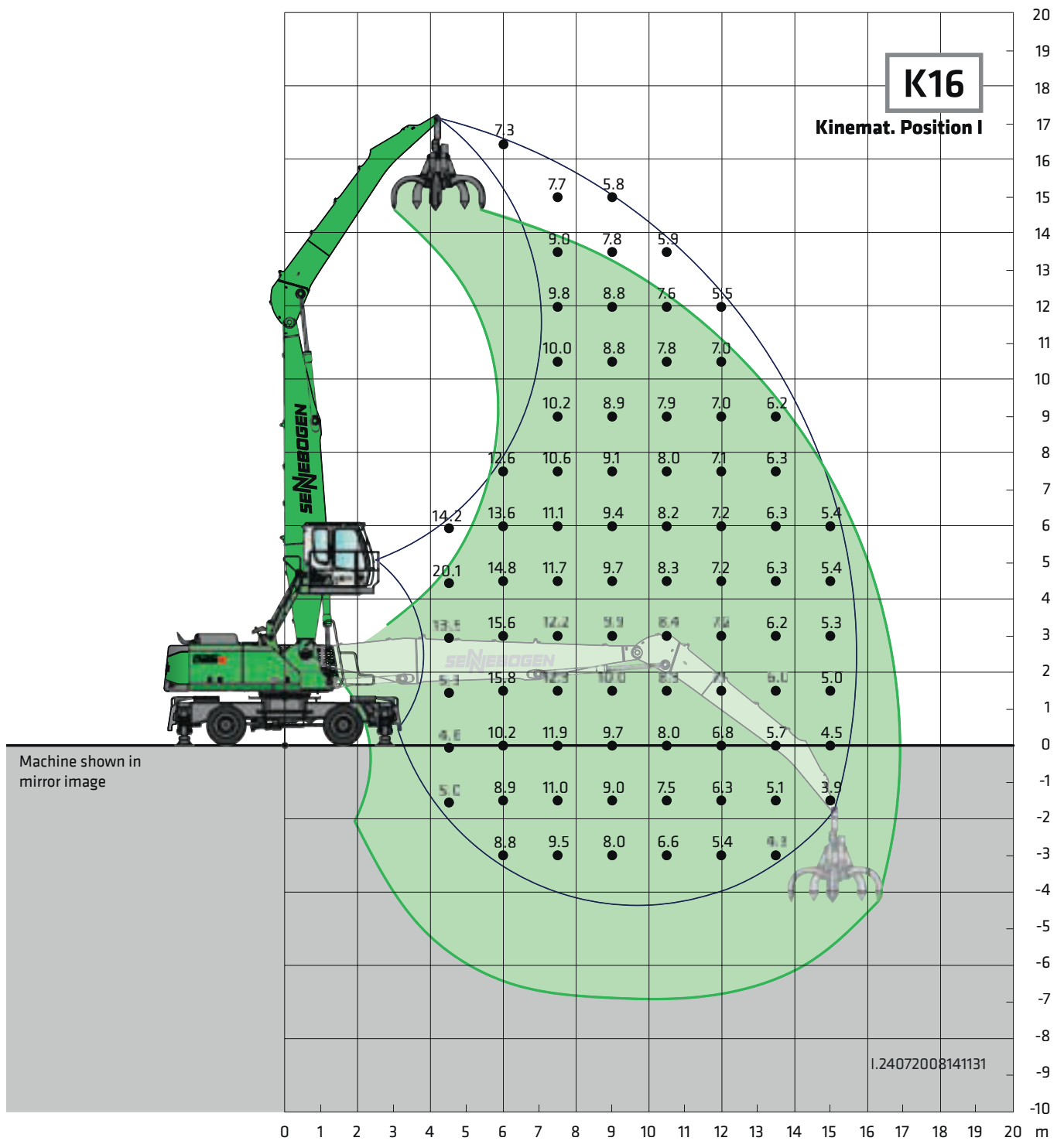
UNDERCARRIAGE 	
Design	Mobile undercarriage with integrated 4-point outriggers, steering axle as hydraulically locking pendulum axle, pendulum axle cylinder with pipe fracture safety valves, type MP41 E
Drive	All-wheel drive powered by a variable-displacement hydraulic motor with direct-mounted, automatically actuated brake valve and 2-stage power shift transmission Planetary axles with integrated steering cylinders, service brake in 2-circuit system
Parking brake	Spring-loaded disk brake
Tires	<b>12.00-20</b> , 8x, option: <b>12.00-24</b> , 8x
Speed	<b>0-5.4 km/h</b> stage I, <b>0-20 km/h</b> stage II
Options	<ul style="list-style-type: none"> <li>■ Individual activation of the outriggers for firm stance on uneven substrate</li> <li>■ Protection for travel drive</li> <li>■ Maneuvering hitch</li> </ul>

ELECTRIC DRIVE 	
Option	<ul style="list-style-type: none"> <li>■ Power: <b>160 kW / 400 volt / 50 Hz</b> Total connected load 270 kVA, fuse protection in machine's switch box 315A at 400 V / in combination with magnet system 355A at 400 V - engine start up via star delta switch.</li> <li>■ Power: <b>200 kW / 400 volt / 50 Hz</b> Total connected load 340 kVA, fuse protection in machine's switch box 400A at 400 V / in combination with magnet system 425 at 400 V - engine start up via star delta switch.</li> <li>■ Advantages: Lowest operating costs, low-noise and virtually vibration-free work, long service life of the hydraulic components</li> </ul>

OPERATING WEIGHT 	
Mass	<b>approximately 45,500 kg</b> Basic machine 835 M with attachment K18 and 600 l orange peel grab
Note	The operating weight varies depending on the model.



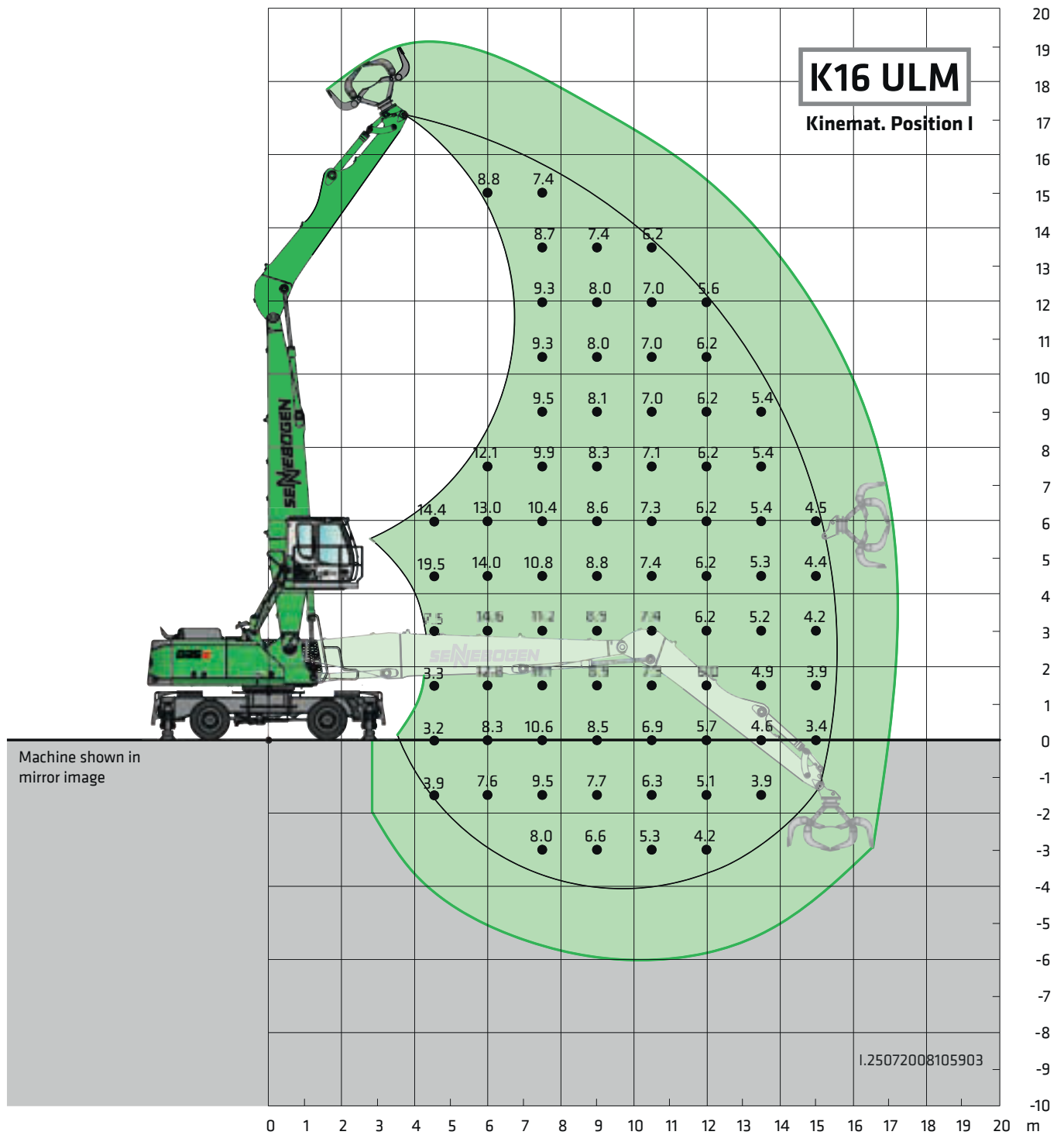
# 835E Lift capacities



**Undercarriage** MP41E      **Compact boom** 9,1 m      **Cab** Maxcab E270, hydraulically elevating  
**Grab stick** 6,9 m

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.

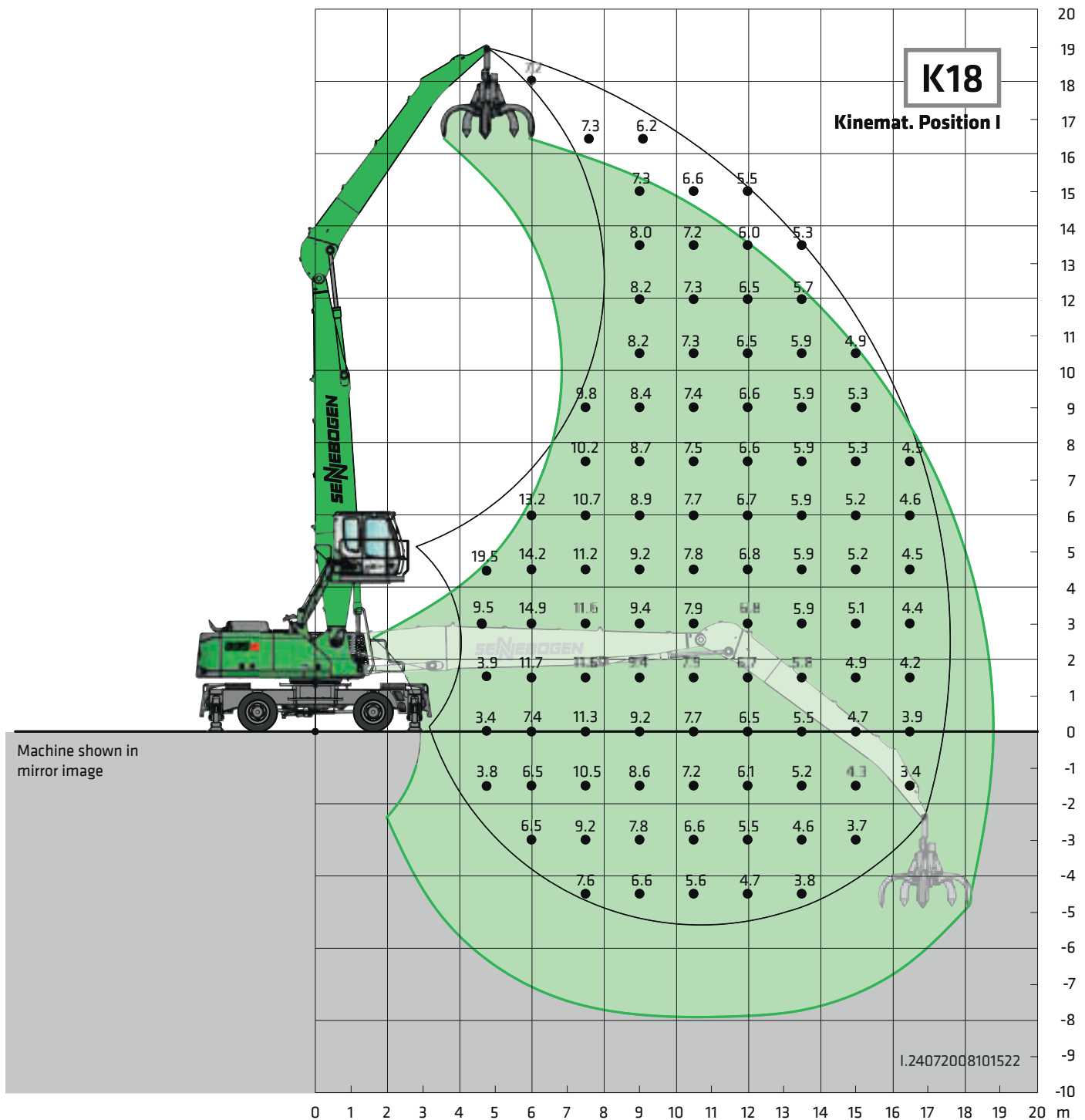
# 835E Lift capacities



<b>Undercarriage</b>	<b>MP41E</b>	<b>Compact boom</b>	<b>9,1 m</b>	<b>Cab</b>	<b>Maxcab E270,</b>
		<b>Grab stick</b>	<b>6,6 m ULM</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.

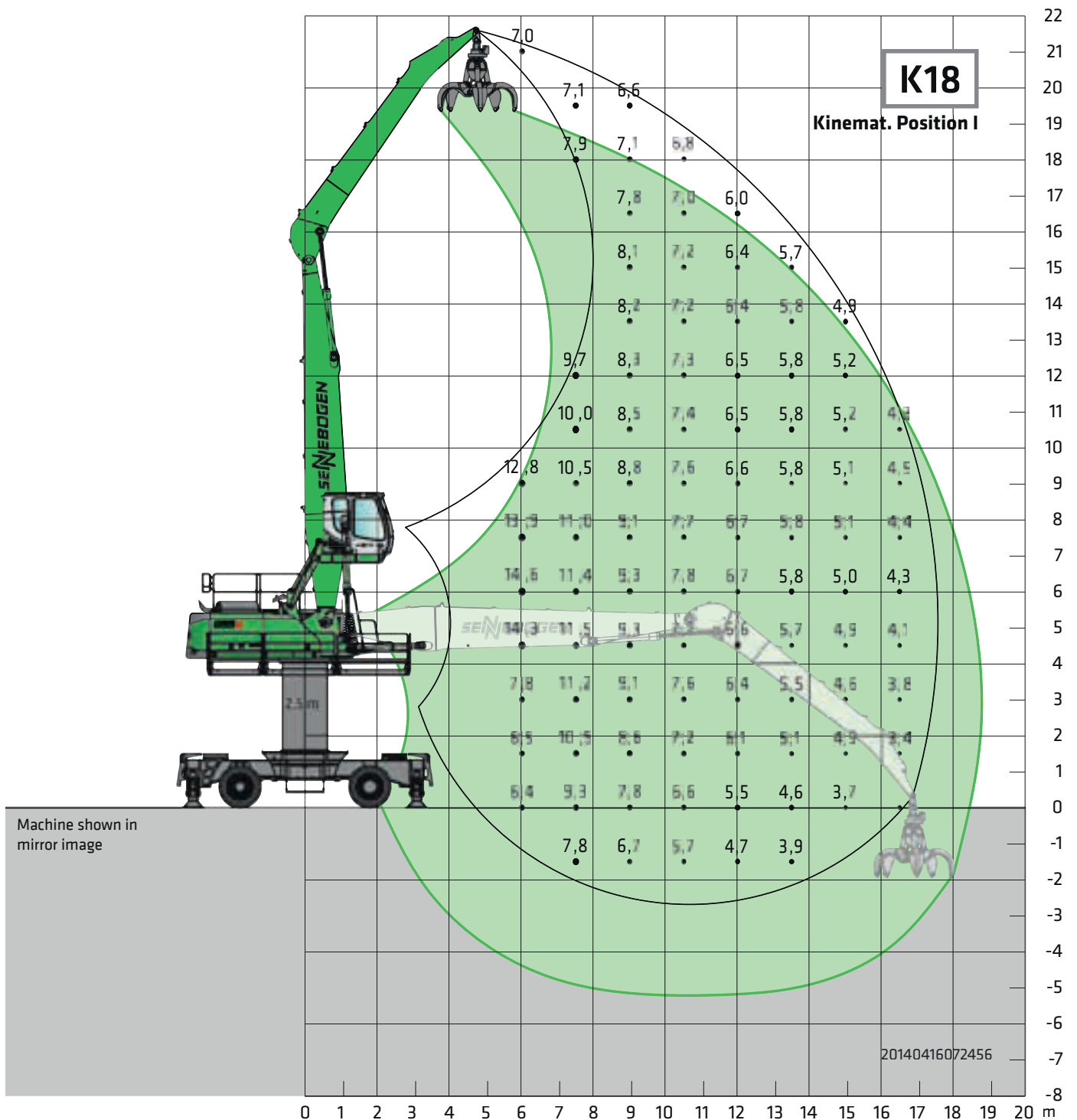
# 835E Lift capacities



<b>Undercarriage</b>	<b>MP41E</b>	<b>Compact boom</b>	<b>10,1 m</b>	<b>Cab</b>	<b>Maxcab E270,</b>
		<b>Grab stick</b>	<b>7,9 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°.

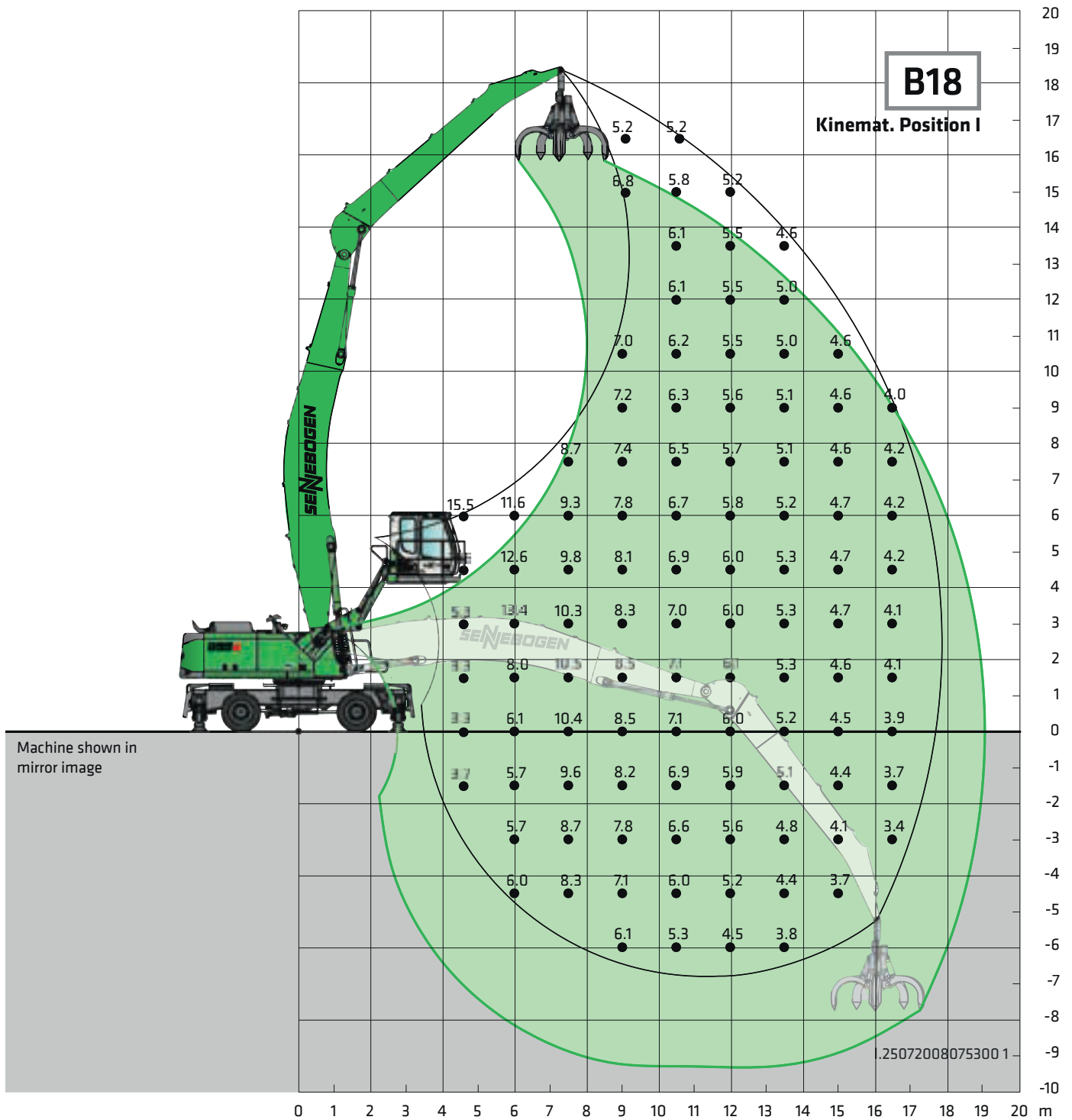
# 835E Lift capacities



<b>Undercarriage Pylon</b>	<b>MP42E 2,5 m</b>	<b>Compact boom Grab stick</b>	<b>10,1 m 7,9 m</b>	<b>Cab</b>	<b>Maxcab E270, hydraulically elevating</b>
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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.

# B35E Lift capacities

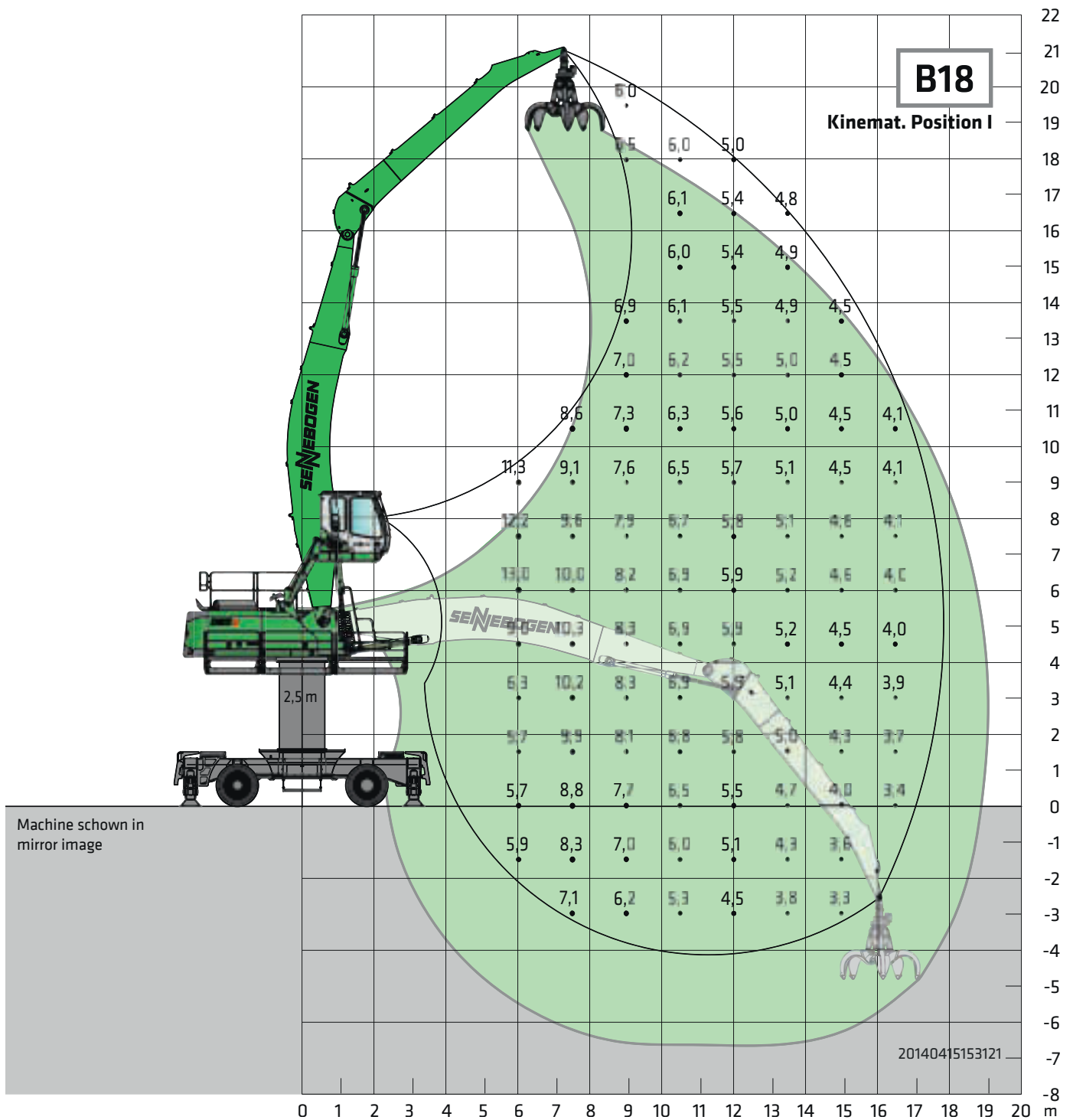


<b>Undercarriage</b>	<b>MP41E</b>	<b>Compact boom Grab stick</b>	<b>10,8 m Banana 7,9 m</b>	<b>Cab</b>	<b>Maxcab E300/260, hydraulic elevating and forward moving (Option)</b>
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All load ratings are specified in tons (t) and apply at the end of the stick, 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.



# B35E Lift capacities



<b>Undercarriage Pylon</b>	<b>MP42E 2,5 m</b>	<b>Compact boom Grab stick</b>	<b>10,8 m Banana 7,9 m</b>	<b>Cab</b>	<b>Maxcab E270, hydraulisch hochfahrbar (Option)</b>
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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.

# B35E Recommended grabs

## Orange peel grab SGM (4 shells)



Design / size	Grab capacity	Weight <sup>1</sup>		Maximum piled density
		Shell form		
		HO	G	
SGM	l	kg	kg	t / m <sup>3</sup>
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	

## Orange peel grab SGM (5 shells)



Design / size	Grab capacity	Weight <sup>1</sup>		Maximum piled density
		Shell shape <sup>2</sup>		
		HO	G	
SGM	l	kg	kg	t / m <sup>3</sup>
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	
1400.40	1400	2250	2500	

## SGZ clamshell grab



Design / size	Grab capacity	Weight <sup>1</sup>	Maximum piled density
SGZ	l	kg	t / m <sup>3</sup>
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
3000.50 L	3000	2140	1.0
3500.50 L	3500	2260	
4000.50 L	4000	2480	0.8
4500.50 L	4500	2600	
1500.50 HD	1500	2240	3.5
2000.50 HD	2000	2535	

## Magnetic plates

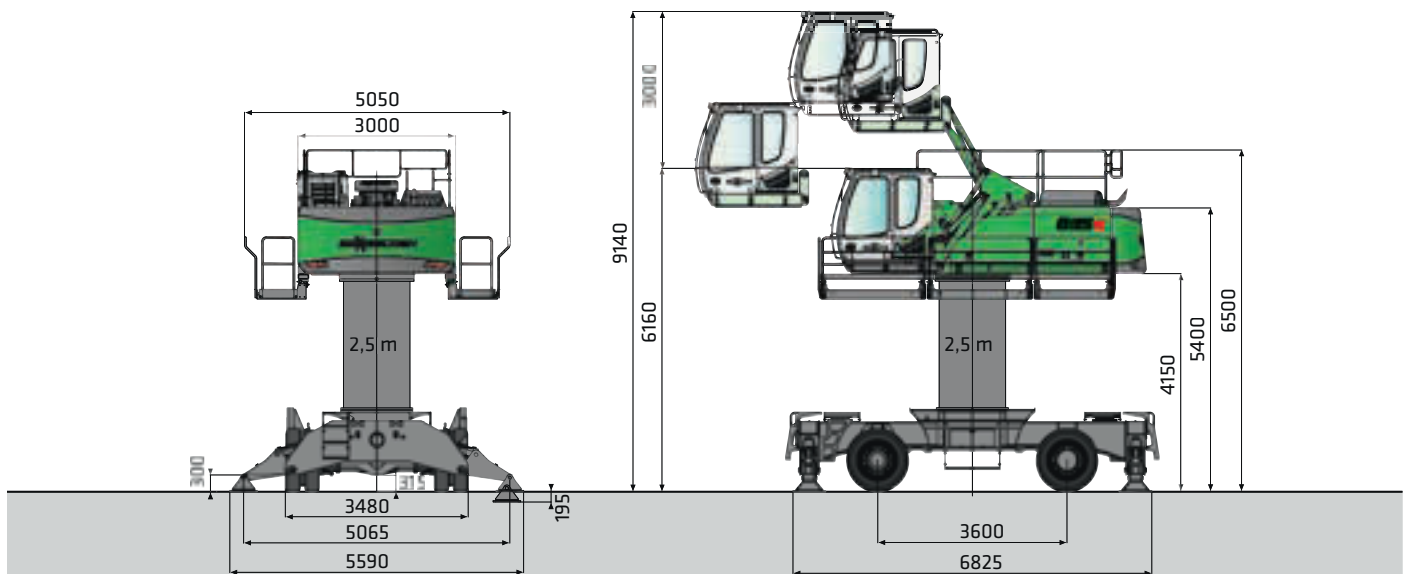


Type series / model	Power	Weight	Pull-off strength	Lifting capacity in kg
WOKO	kW	kg	kN	Slab (safety factor 2)
S-RSL 15	12.2	1950	360	18000
S-RSL 17	17.0	2500	460	23000
S-RLB 13.5	10.0	1700	300	15000
S-RLB 15	11.7	2400	380	19000
S-RLB 17	17.8	3300	640	32000
Recommended magnetic generator: 15 kW/20 kW				

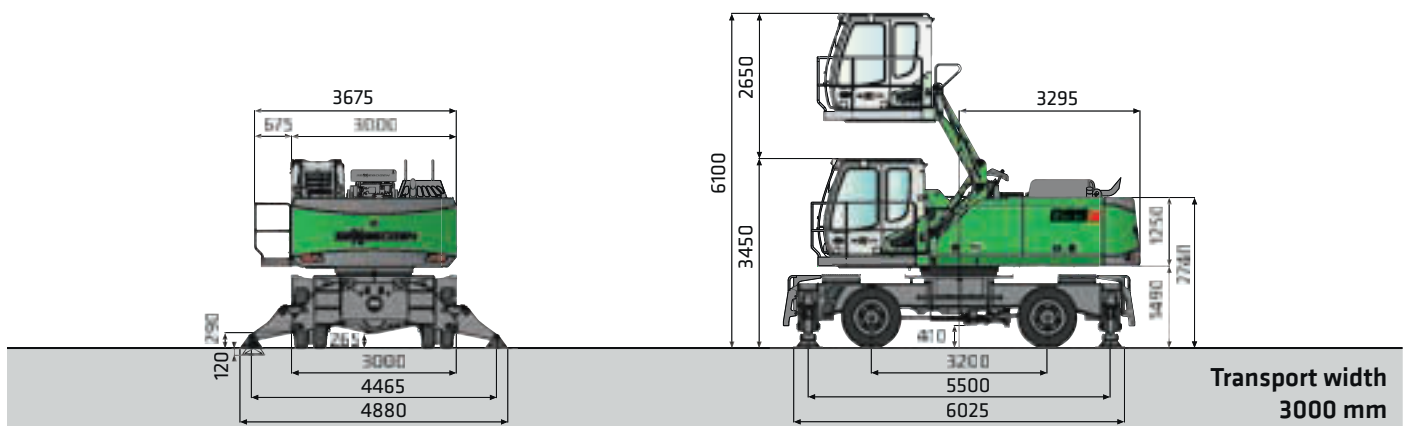
<sup>1)</sup> Available upon request <sup>1)</sup> Weight information without grapple suspension, stick bolts, hose system

<sup>2)</sup> Half-open shells: shell sheet steel width 400 mm, 500 mm for 1250 l capacity and higher

# 835E Dimensions

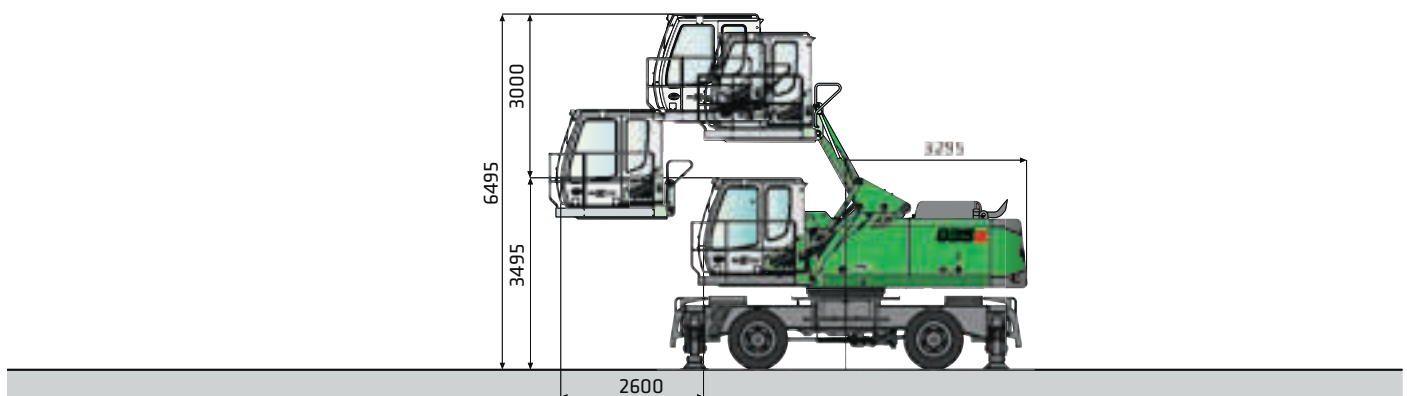


**835 M with undercarriage MP42 and hydraulically elevating and forward moving cab type E300/260**



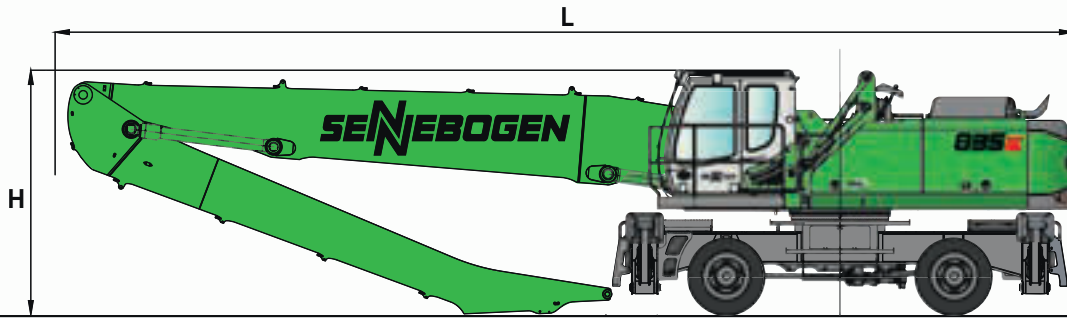
**835 M with undercarriage MP41 and hydraulically elevating cab type E270**

Transport width  
3000 mm



**835 M with undercarriage MP41 and hydraulically elevating and forward moving cab type E300/260**

# 835E M



## Transport dimensions 835 M with undercarriage type MP41E

	Loading boom	Grab stick	Transport length (L)	Transport height (H)
<b>K16</b>	9.1 m	6.9 m	13.5 m	3.45 m
<b>K18</b>	10.1 m	7.9 m	14.5 m	3.45 m
<b>B18</b>	10.8 m Banana	7.9 m	15.0 m	3.45 m
<b>K16 ULM</b>	9.1 m	6.6 m	13.5 m	3.45 m

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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 835M-E-111410-061510-091610-031810-021910