



**129 kW (Stage V)**



**110 kW (Electro)**



**28,8 t**

**12 - 14 m**



**MAX CAB**

# 825E

Mobile material handling machine

# 825E 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

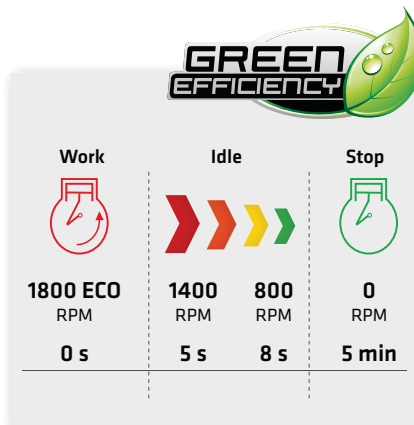
3 production sites - 2 subsidiaries  
more than 150 sales partners - worldwide and also in your area





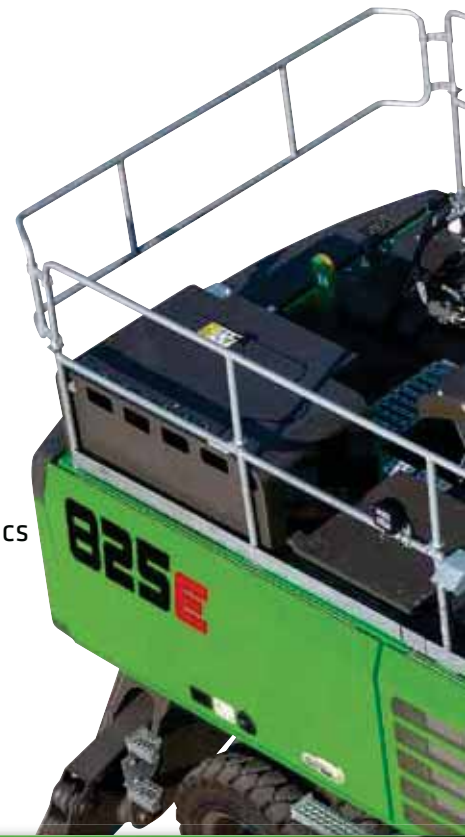


# 825E The E-Series. At a glance.



## 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

- No-slip work surfaces
- Hand rails\* **1**
- 2 cameras to the right and rear
- Step grid with railing next to cab 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
- comfort seat with air suspension
- 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 cool box behind driver's seat, seat air conditioning

## 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



# 825E Maintenance and service made easy.



## Optimized for maintenance

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



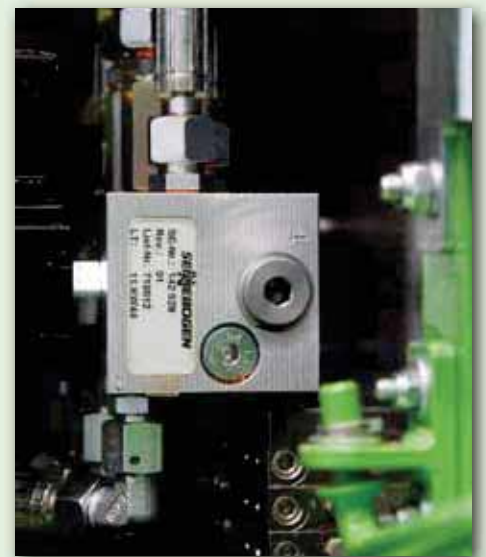
## SENNEBOGEN HydroClean\*

- Optimal protection of hydraulic components thanks to 3  $\mu\text{m}$  micro-filter
- Cleaner hydraulic oil, longer oil service life



## Central measuring points

- Easily accessible
- Inspect the entire hydraulic system quickly



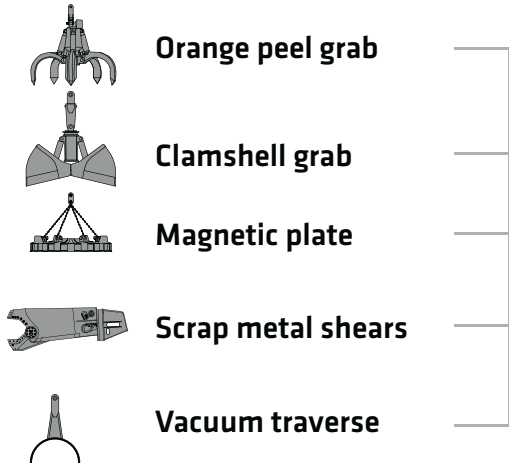
## Clear labeling

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

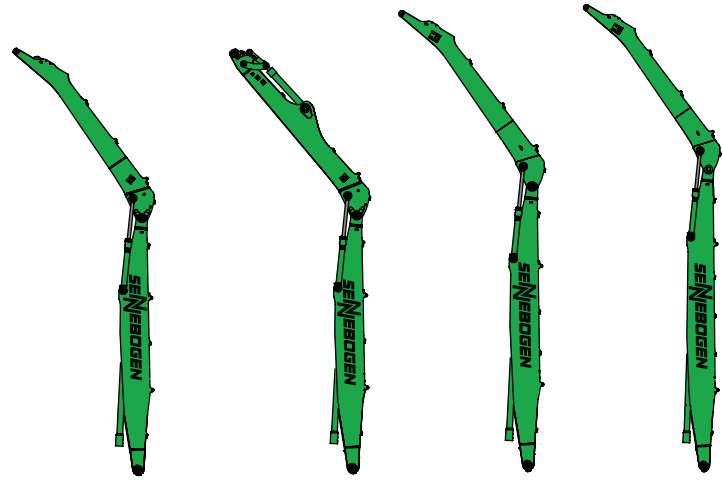
\* Option

# 825E Modular design - versatile solutions

## Attachments



## Equipment options (others available upon request)



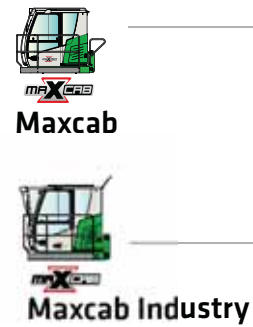
K12

K12 ULM

K13

K14

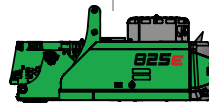
## Cabs



## Cab elevation



## Uppercarriage



Diesel-hydraulic drive



Electrohydraulic drive

## Options

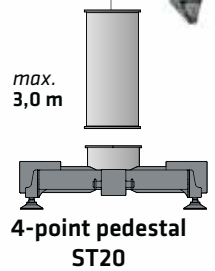
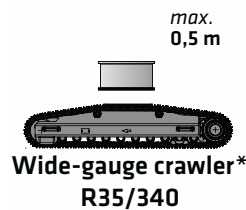
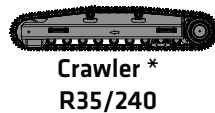
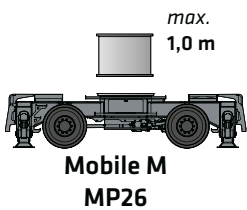


Motorized cable reel



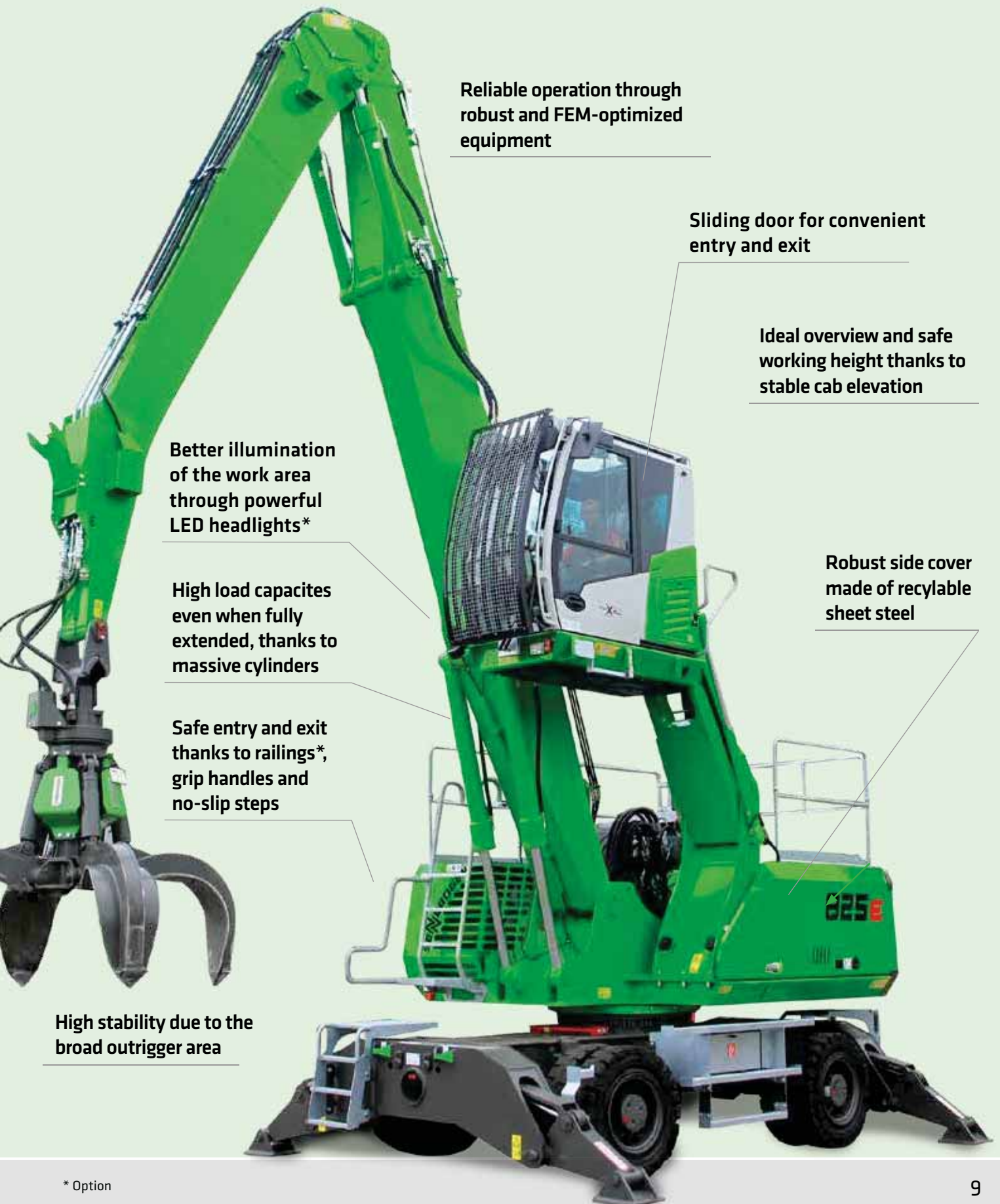
Transformer

## Undercarriage variants





# 825E Advantages at a glance



Reliable operation through robust and FEM-optimized equipment

Sliding door for convenient entry and exit

Ideal overview and safe working height thanks to stable cab elevation

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

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

Safe entry and exit thanks to railings\*, grip handles and no-slip steps

Robust side cover made of recyclable sheet steel

High stability due to the broad outrigger area

\* Option

# 825E Technical data, equipment

## MACHINE TYPE

Model (type) **825**

## ENGINE

Power **Stage V:**  
Rated Power: 129 kW at 2200 rpm  
145 kW at 2000 rpm

Model **Cummins 6.7**  
Direct injection, turbo-charged, charge air cooler, reduced emissions, Eco Mode, automatic idle, automatic stop

Cooling Water-cooled

Diesel filter With water separator and heating system

Air filter Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator

Fuel tank **450 l**

DEF tank **45 l**

Electrical system **24 V**

Batteries **2 x 155 Ah**, main switch

Options

- Engine block heater
- Electric fuel pump
- Jump-start battery terminals

## UPPERCARRIAGE

Design Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine

Central lubrication Automatic central lubrication for equipment and slewing ring

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
- Peripheral uppercarriage railing for additional safety
- LED lighting packages
- Fire extinguisher
- Maritime climate varnish as corrosion protection

Options

- Electric heater for hydraulic tank
- Low temperature packages
- Hydraulically driven magnetic generator 15 kW
- Telematic system SENtrack DS

## HYDRAULIC SYSTEM

Load sensing / LUDV hydraulic system for hydraulic, pilot-controlled work functions

Pump type Swashplate-type variable-displacement piston pump, 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 **410 l/min**

Operating pressure **max. 350 bar**

Filtration High-performance filtration with long change interval

Hydraulic tank **310 l**

Control system Proportional, precision hydraulic actuation of work movements, 2 hydraulic servo joysticks for the work functions, additional 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 – environmentally friendly
- ToolControl for programming the pressure/rate for up to 10 tools
- Additional hydraulic circuit for shear attachment
- Load moment warning with capacity utilization indicator
- Overload safeguard with overload shutdown
- 3 µm hydraulic micro-filter - SENNEBOGEN HydroClean

## SLEWING DRIVE

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



Parking brake Spring-loaded multi-disk brake


Slewing ring Strong slewing ring, sealed


Slewing speed 0-8 rpm, variable






# 825E Technical data, equipment

 <b>CAB</b> 	
Cab elevation	E270, hydraulically elevating cab
Cab equipment	Sliding door inc. sliding pane, vibration damped, tinted safety glass, front pane can be openend, roof window, windscreen wiper for front pane, radio preparation, air-suspended comfort seat, joystick steering, SENNEBOGEN SENCON control & diagnosis system
Options	<ul style="list-style-type: none"> <li>■ Tilttable cab, 30 °</li> <li>■ Cab elevation E300/260, can be elevated and moved forward hydraulically</li> <li>■ Maxcab Industry</li> <li>■ Armored-glass windshield</li> <li>■ Armored-glass sunroof</li> <li>■ Safety side window and rear window</li> <li>■ Windscreen wiper for front window/skylight</li> <li>■ Rolling shade for roof window and windshield</li> <li>■ FOPS protective roof guard</li> <li>■ Protective front guard</li> <li>■ Charcoal filter for circulating and outside air</li> <li>■ Auxiliary heating</li> <li>■ Climatic seat</li> <li>■ Radio</li> <li>■ Electric cool box</li> </ul>

 <b>EQUIPMENT</b>	
Design	Decades of experience, state-of-the-art computer simulation, highest level of stability, longest service life, large-dimensioned and low-maintenance bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the connections - open/close/rotate grapple
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 at the hydraulic lines for grabs</li> <li>■ Adjustable hoisting limiter/stick limiter e.g. in the hall</li> <li>■ Multi-coupling</li> </ul>

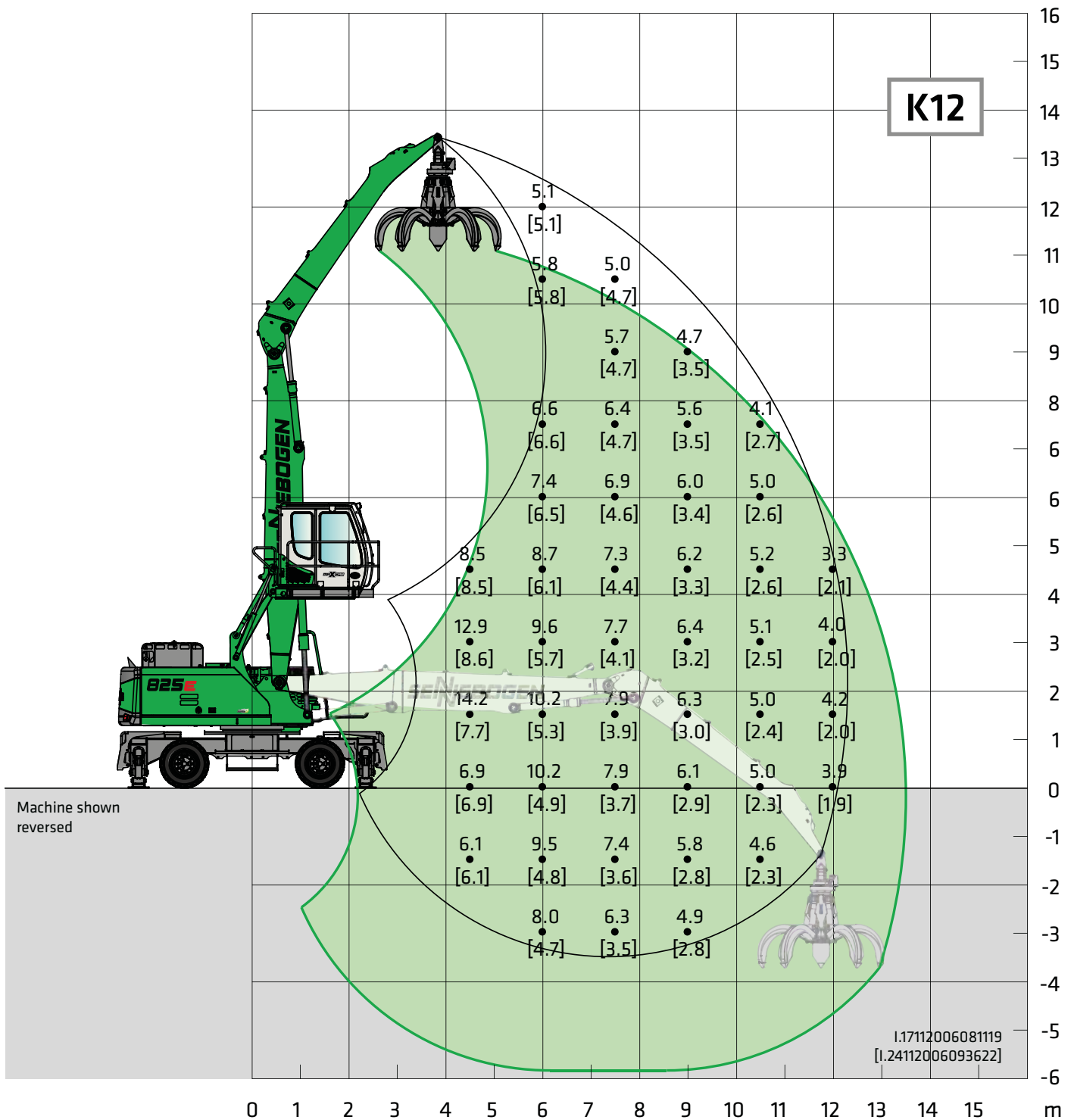
 <b>UNDERCARRIAGE</b>	
Design	Strong mobile undercarriage with integrated 4-point outriggers, steering axle as hydraulically locking pendulum axle, pendulum axle cylinder with pipe fracture safety valves
Drive	All-wheel drive powered by a variable-displacement hydraulic motor with direct-mounted, automatically actuated brake valve and 2-stage power shift transmission, strong planetary axles with integrated steering cylinders, service brake in 2-circuit system
Parking brake	Spring-loaded multi-disk brake
Tires	<b>M:</b> solid-rubber tires <b>10.00-20</b> , 8x
Speed	<b>0 - 7 km/h</b> Level I: <b>0 - 20 km/h</b> Level II
Options	<ul style="list-style-type: none"> <li>■ Pneumatic tires <b>10.00-20</b>, 8x</li> <li>■ Additional pushing blade for 4-point outrigger (front or rear)</li> <li>■ Individual outrigger actuation</li> <li>■ Protection for travel drive/coupling</li> <li>■ Pylon</li> </ul>

 <b>ELECTRIC DRIVE</b> 	
Option	<ul style="list-style-type: none"> <li>■ Power: <b>110 kW, 400 V, 50 Hz</b> Total connected load: 240 kVA, machine side 250 A at 400 V fuse, alternatively 315 A with magnet system – star-delta connection motor start</li> <li>■ Advantages: Lowest operating costs, quiet and almost vibration-free work, long service life of hydraulic components</li> </ul>

 <b>OPERATING WEIGHT</b>	
Mass	825 M with 4-point outrigger and compact loading attachment <b>Approx. 28,800 kg</b>
Notice	Operating weight varies by model and equipment.



# 825E Load ratings



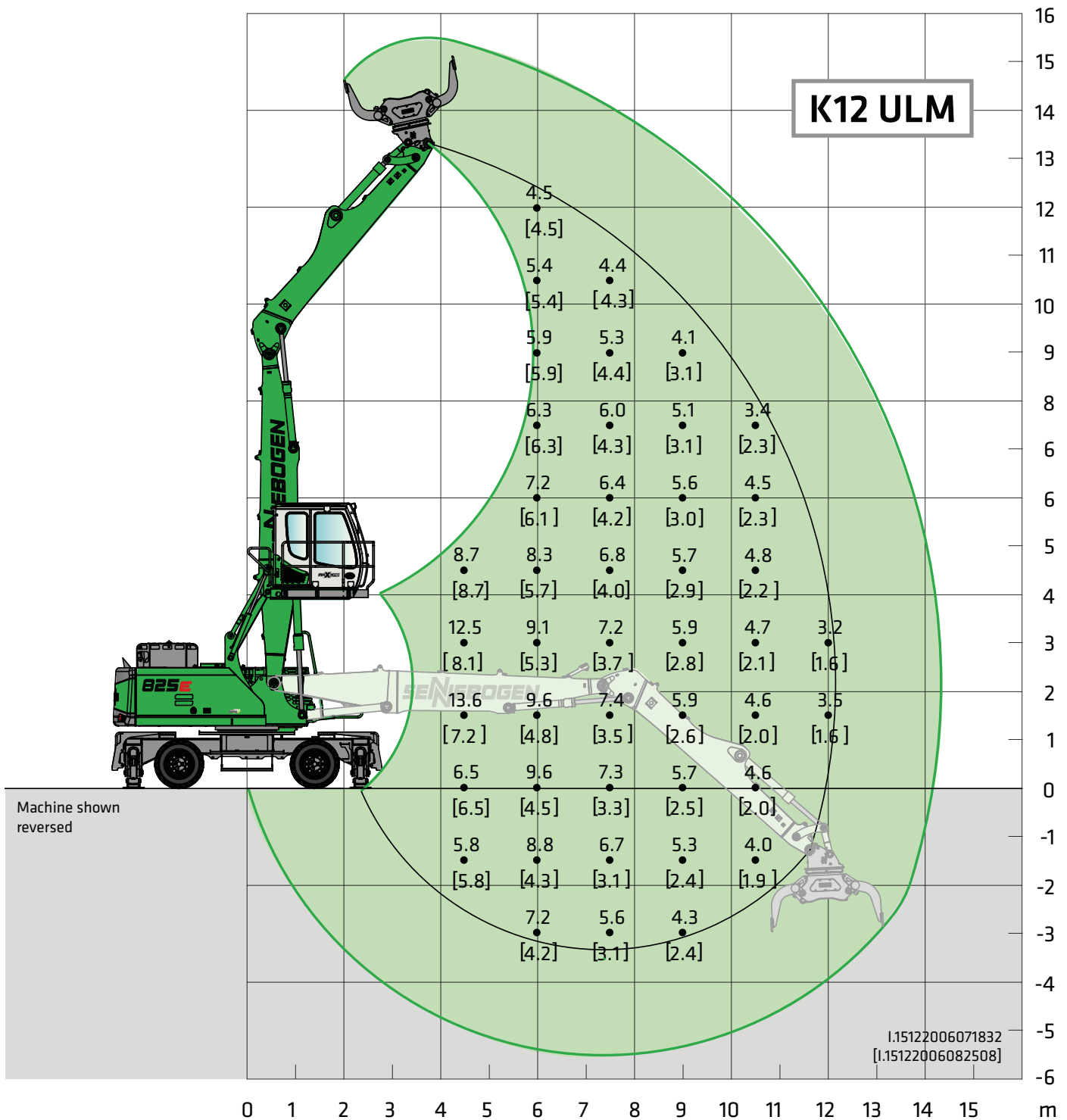
Undercarriage **MP26E**

Compact boom **6.8 m**  
Grab stick **5.6 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 solid, level ground. Attachments such as grabs, magnets, load hooks, etc. 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 EU standard EN 474 / 5, hydraulic material handling machines used for hoisting must be equipped with pipe fracture safety devices on the hoist and stick cylinders and an overload warning device. Load ratings apply to a machine with deployed 4-point outrigger support and 360° slewing. Load ratings in square brackets [ ] apply to blocked pendulum axle, undeployed outriggers (free-standing) and 360° slewing.

# 825E Load ratings



Undercarriage **MP26**

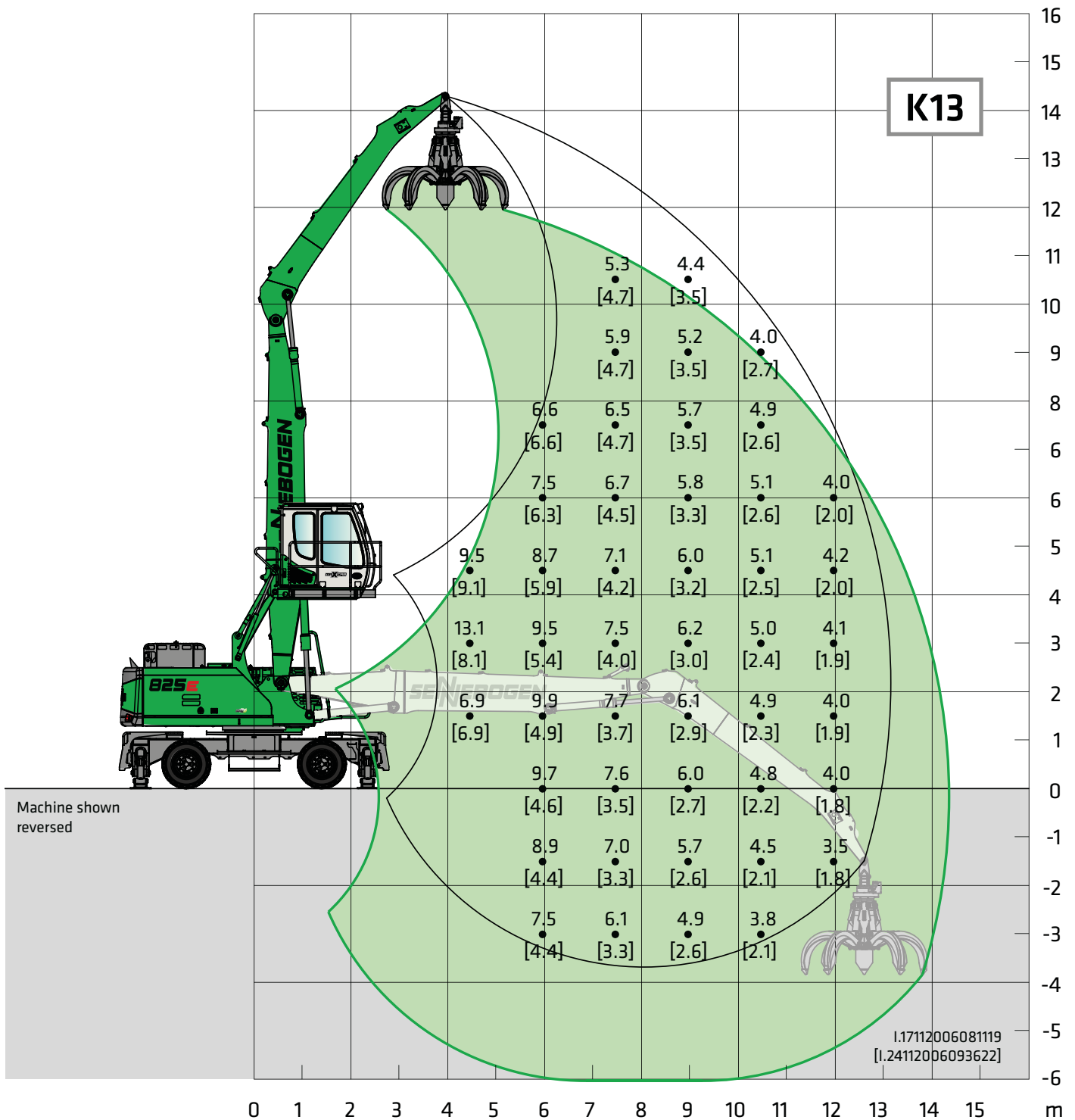
Compact boom **6.8 m**  
Grab stick **5.5 m ULM**

Cab **Maxcab E270,**  
**hydraulically elevating**

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grabs, magnets, load hooks, etc. 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 EU standard EN 474 / 5, hydraulic material handling machines used for hoisting must be equipped with pipe fracture safety devices on the hoist and stick cylinders and an overload warning device. Load ratings apply to a machine with deployed 4-point outrigger support and 360° slewing. Load ratings in square brackets [ ] apply to blocked pendulum axle, undeployed outriggers (free-standing) and 360° slewing.



# 825E Load ratings



Undercarriage **MP26**

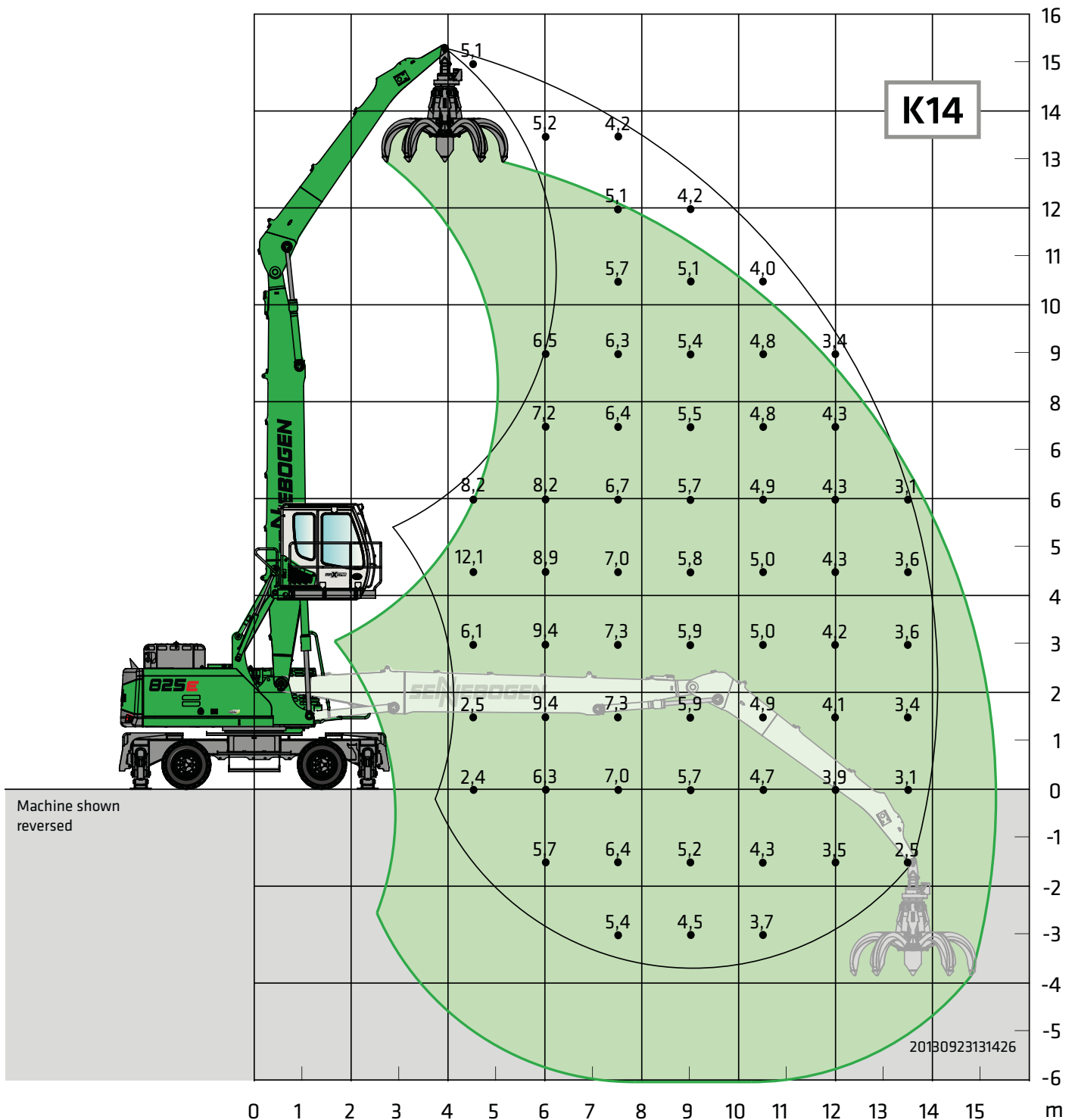
Compact boom **7.5 m**  
Grab stick **5.8 m**

Cab

**Maxcab E270,**  
**hydraulically elevating**

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grabs, magnets, load hooks, etc. 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 EU standard EN 474 / 5, hydraulic material handling machines used for hoisting must be equipped with pipe fracture safety devices on the hoist and stick cylinders and an overload warning device. Load ratings apply to a machine with deployed 4-point outrigger support and 360° slewing. Load ratings in square brackets [ ] apply to blocked pendulum axle, undeployed outriggers (free-standing) and 360° slewing.

# 825E Load ratings



**Undercarriage MP26**

**Compact boom 8.5 m**  
**Grab stick 5.8 m**

**Cab Maxcab E270,**  
**hydraulically elevating**

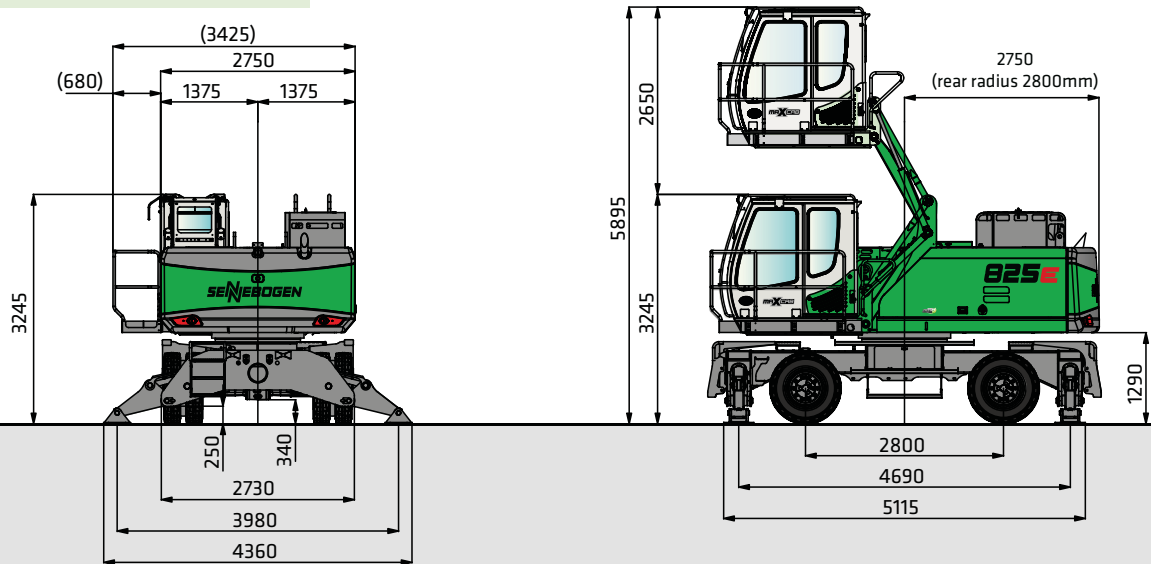
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# 825E Transport dimensions

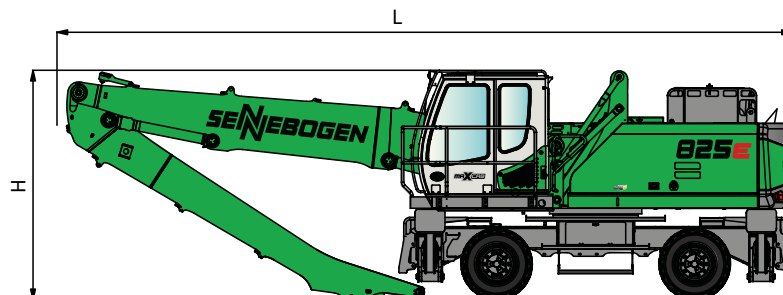
# M

Transport width 2,570 mm

Solid-rubber tires 10.00-20,8x



825 M with undercarriage type MP26 (series) and hydraulically elevating cab type E270



825 M with undercarriage type MP26

	Compact boom	Grab stick	Transport length (L)	Transport height (H)
K12	6.8 m	5.6 m	10.40 m	3.25 m
K12 ULM	6.8 m	5.5 m	10.40 m	3.40 m
K13	7.5 m	5.8 m	11.10 m	3.30 m
K14	8.5 m	5.8 m	12.05 m	3.25 m

**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



# 825E Recommended grabs

## Orange peel grab (4 shells)



Design / size	Grab capacity	Weight <sup>1</sup>		Maximum piled density
		Shell shape		
		HO	G	
SGM	l	kg	kg	t / m <sup>3</sup>
400.30-4	400	1240	1350	2.0
600.30-4	600	1280	1410	
800.30-4	800	1320	1510	
400.40-4	400	1570	1720	
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 (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>
400.30	400	1400	1475	2.0
600.30	600	1430	1550	
800.30	800	1460	1600	
400.40	400	1820	1920	
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	

## Clamshell grab SGZ



Design / size	Grab capacity	Weight <sup>1</sup>	Maximum piled density
SGZ	l	kg	t / m <sup>3</sup>
1000.40	1000	1270	2.0
1200.40	1200	1360	
1400.40	1400	1420	
1600.40	1600	1530	

## Magnetic plates



Type series / model	Power	Weight	Breakaway force	Load-bearing capacity in kg
WOKO	kW	kg	kN	Slab (safety factor 2)
S-RSL 13	10.5	1300	260	1300
S-RSL 15	12.2	1950	360	1800
S-RLB 12.5	8.8	1310	280	14000
S-RLB 13.5	10.0	1700	300	15000

**Recommended magnetic generator: 15 kW/20 kW**

\*) 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 wide for 1250 l capacity and higher



825 M - Scrap handling with orange peel grab; Germany



18 825 M - New scrap handling with magnetic plate; Germany





825 M Electro - Indoor scrap handling with overhead power supply; Germany

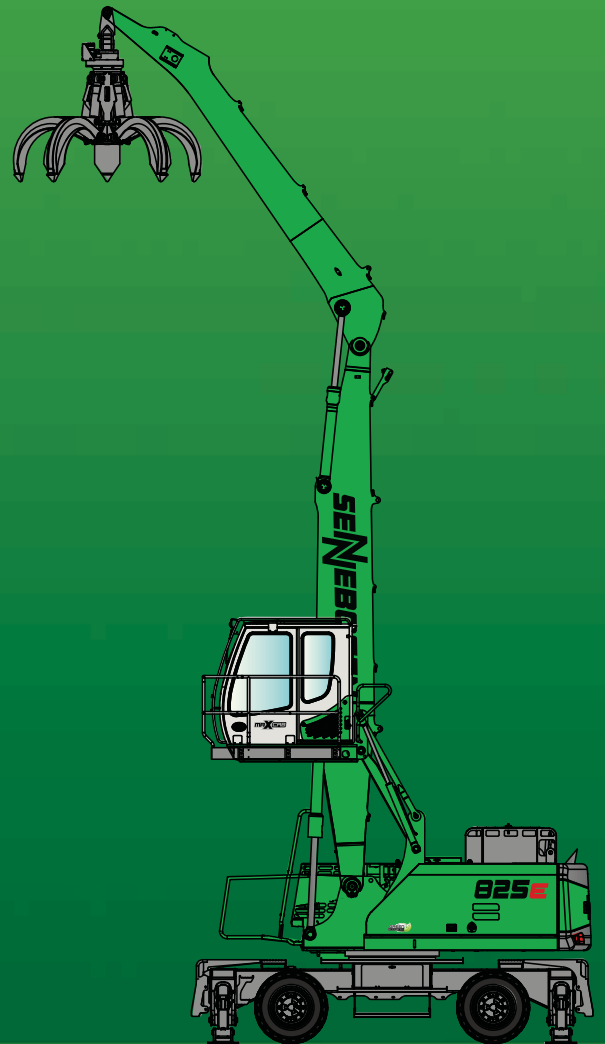


825 M - Mobile scrap handling with original SENNEBOGEN orange peel grab; Germany



# 825E

# M



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